FLANDERS DC
INSPIRING CREATIVITY

Knowledge partner

Vlerick Leuven Gent Management School

the Autonomous Management School of
Ghent University and Katholieke Universiteit Leuven

RESEARCH REPORT

FOREIGN DIRECT INVESTMENTS
Trends and developments

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FLANDERS DISTRICT OF CREATIVITY

Flanders District of Creativity is the Flemish organization for **entrepreneurial creativity.** It was founded in 2004 by the Flemish Government as a non-profit organization and enjoys broad support. Flemish businesses, academia, and public institutions use Flanders DC as a platform for cooperation in the pursuit of a more creative Flanders region.

Creativity is the key ingredient in making companies more successful and in helping regional governments ensure a healthy economy with more jobs. Flanders DC inspires creativity and innovation:

1. by learning from the most **creative regions** in the world,
2. by igniting **creative sparks** in everyday life and business, and
3. by providing **research, practical business tools and business training,** in cooperation with the Flanders DC Knowledge Centre.

1. Districts of Creativity: Inspiration from the most creative regions

Responses to global challenges are best found within an international network of excellence. With the single aim of learning from the very best, Flanders DC aims to unite the most dynamic regions in the world within the 'Districts of Creativity' network. Every two years, Flanders DC convenes the Creativity World Forum, bringing together government leaders, entrepreneurs, and knowledge institutions to exchange ideas about how to tackle pressing economic problems and make their regions hotbeds for innovation and creativity.

CREATIVITY WORLDFORUM

November 19-20, 2008 - Antwerp, Belgium

FLANDERSDC INSPIRING CREATIVITY

2. Raising awareness: The best way to predict the future is to invent it

Flanders DC encourages entrepreneurs and citizens to look ahead and find creative solutions today for tomorrow's problems. Flanders DC has developed an idea-generation tool to encourage people and organizations to take the first step toward innovation. In addition, Flanders DC runs a general awareness-raising campaign entitled “Flanders’ Future”.

jij bent FLANDERS' FUTURE

3. The Flanders DC Knowledge Centre: Academic support

The **Flanders DC Knowledge Centre** serves as a link between Flanders DC and Vlerick Leuven Gent Management School. Each year, the Flanders DC Knowledge Centre publishes several reports and develops various tools, case studies and courses. All these projects focus on the role of creativity in a business environment and identify obstacles to, and accelerators of competitive growth.

The **Creativity Talks** – brief monthly, interactive info sessions – update you on these research activities. See www.creativitytalks.be for a current calendar and subscription information.

Research reports:

- **De Vlaamse economie in 2015: Uitdagingen voor de toekomst,** Koen De Backer en Leo Sleuwaegen, September 2005, Published in Dutch
- **Ondernemingscreativiteit als motor van groei voor Vlaamse steden en Brussel,** Isabelle De Voldere, Eva Janssens en Jonas Onkelinx, November 2005, Published in Dutch
- **The Creative Economy: challenges and opportunities for the DC-regions,** Isabelle De Voldere, Eva Janssens, Jonas Onkelinx en Leo Sleuwaegen, April 2006, Published in English
- **Spelers uit de televisiesector getuigen: een verkennende studie in de creatieve industrie,** Marc Buelens en Mieke Van De Woestyne, Juni 2006, Published in Dutch
- **Mobiliseren, dynamiseren en enthousiasmeren van onze toekomstige zilvervloot,** Thomas Dewilde, Annick Vlaminckx, Ans De Vos en Dirk Buyens, Juni 2006, Published in Dutch
- **Development of a regional competitiveness index,** Harry Bowen, Wim Moesen and Leo Sleuwaegen, September 2006, Published in English
- **Innovation outside the lab: strategic innovation as the alternative,** Marion Debruyne and Marie Schoovaerts, November 2006, Published in English
- **De creatieve industrie in Vlaanderen,** Tine Maenhout, Isabelle De Voldere, Jonas Onkelinx en Leo Sleuwaegen, December 2006, Published in Dutch
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- **Creatief ondernemen in Vlaanderen**, Tine Maenhout, Jonas Onkelinx en Hans Crijns, Maart 2007, Published in Dutch
- **Hoe ondernemers in Vlaanderen opportuniteiten identificeren. Een rapport met tips en tools voor de ondernemer in de praktijk**, Eva Cools, Herman Van den Broeck, Sabine Vermeulen, Hans Crijns, Deva Rangarajan, Mei 2007, published in Dutch
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- **Internationalization of SMEs**, Jonas Onkelinx, Leo Sleuwaegen, April 2008

- **HRM-uitdagingen voor groeiende ondernemingen**, Mieke Van De Woestyne, Kristien Van Bruystegem, Prof. Dr. Koen Dewettinck, Maart 2008

- **Sociaal Ondernemerscahp in Vlaanderen,** Hans Crijns, Frank Verzele, Sabine Vermeulen, April 2008

Published research reports can be downloaded via the Vlerick Leuven Gent Management School library catalogue or via www.flandersdc.be.

In addition to these research projects, the Flanders DC Knowledge Centre has also developed the following tools and training sessions:

- **Ondernemen.meerdan.ondernemen**, an online learning platform
- **Creativity Class** for young high-potentials
- **Flanders DC Fellows**, inspiring role models in business creativity
- **Creativity Talks**, monthly seminars on business creativity and innovation

FLANDERSDC FELLOWS

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Since long Flanders' economic development has been largely driven by foreign investments. Sleuwaegen et al. (2004) calculated that in 2001 foreign owned firms accounted for approximately 40% of employment in Flanders and about half of total value added. US investments traditionally took a large part in this and the main foreign activities have been concentrated in highly efficient manufacturing industries such as chemicals, automotive and pharmaceuticals.

A very important driver for attracting these investments in Flanders was the central location of the region within the European Union, as well as the availability of a highly skilled and productive workforce.

However, during the last decade the global economic reality has changed tremendously with the opening up of huge new markets, the further liberalization of trade and spectacular evolutions in ICT. All these changes have had an important impact on the way that multinationals organize their activities worldwide and thus on the nature and distribution of foreign investments around the globe.

As a consequence, the competitive position of Flanders within the global economic arena is changing gradually. With the accession of many new member states into the European Union, the center within the EU is gradually moving eastward. Moreover, several promising new markets showing two-digit growth figures and having a local labor force available at a fraction of the cost in Flanders attract the attention ànd investments of firms. This implies that more and more foreign firms in manufacturing are moving away or downsizing their manufacturing activities in the region. Compared to other countries or regions, also in attracting foreign investments in services and other knowledge-based activities Flanders appears to be lagging behind (De Backer and Sleuwaegen, 2005 (b)). Given the importance of foreign investments for the economic development of Flanders, it is clear that Flanders urgently has to reposition itself within this new global economic setting based on the strengths it can offer to multinational firms looking for the most favorable location in this new context.

The purpose of this project is to give all stakeholders that are involved in developing this new long term vision on Flanders' attractiveness for foreign investments, the essential insights into the latest evolutions in international business and economic geography, as well as of Flanders' changing position. This report is the first of two reports on this topic.

Within the global investment context, this report gives a clear understanding of the way FDI flows and stock are geographically and sectorally distributed across the globe, as well as how this distribution has changed over the last decade. This analysis is based on secondary data sources. In a second part, the report focuses on Belgium. It analyses Belgium's position in attracting FDI and evolutions over time, as well as looks into specific characteristics of the foreign firms investing in Belgium.

PART 1: WORLDWIDE TRENDS IN FDI

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Since 1980, foreign direct investment[1] (FDI) has been growing exponentially. With an amount of about $1.200 billion, FDI in 2006 is twentyfold the size of FDI in 1980. This exponential growth was especially concentrated in the last decade. A number of factors lie at the basis of this recent FDI explosion: strong macroeconomic growth in most major economies, strong corporate profitability, generally low interest rates, high stock prices and generally high real estate prices (WIR, 2007). This has been resulting in an increased international investment activity, especially through mergers and acquisitions (M&A). Although the developed countries still play a major role in FDI activities, developing economies become more and more involved as well.

This first part describes the most recent status on FDI flows (both in- and outflow) and stocks worldwide, as well as important shifts over time at the geographical and sectoral level. It also looks into the importance of M&A in FDI and the relationship between FDI and GDP. It concludes with some worldwide FDI prospects.

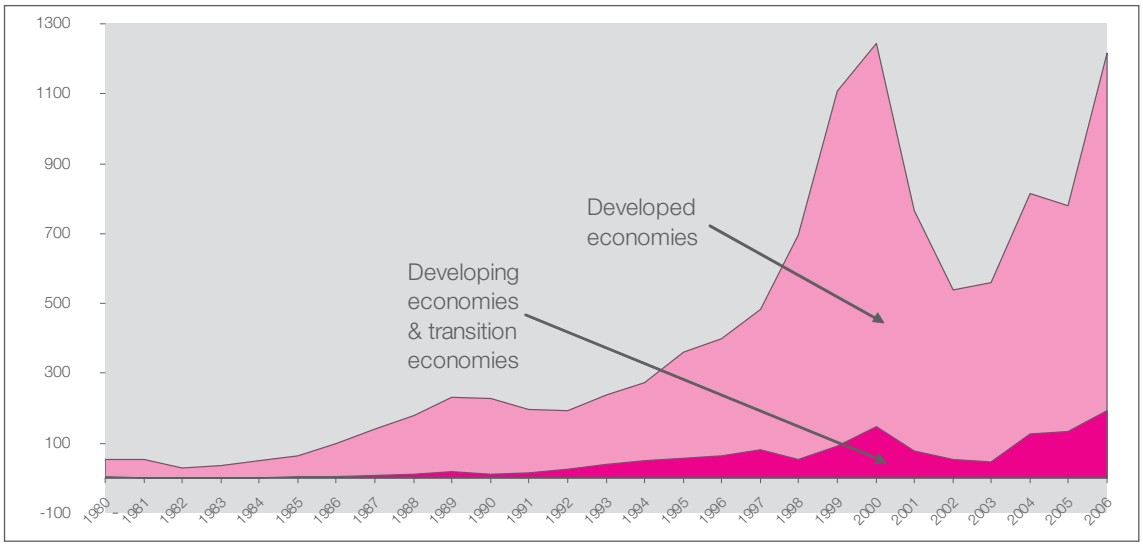
[1] FDI is defined as any investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate) (UNCTAD).

In 2006 worldwide FDI outflows reached $1.216 billion, only $29 billion less than the record level of 2000. Overall outflows have been rising since 1980, exploded over the period 1997-2000 and strongly declined in 2000-2002. The main cause for the decline was a sluggish growth in the developed countries, in particular in the Euro area and Japan. Since 2003 FDI outflows have been booming again (except for a modest decline in 2005 (4,2%)). In 2006, worldwide outflows rose by a stunning 56%.

1.1. Geographical distribution of FDI outflows

In 2006, over 84% of all global outflows originated from the developed countries. Firms originating from developed countries invested over $1.022 billion to acquire a long-term, controlling stake in a foreign firm.

Figure 1: FDI outflows, 1980-2006 (billion $)



Source: UNCTAD World Investment Report 2007

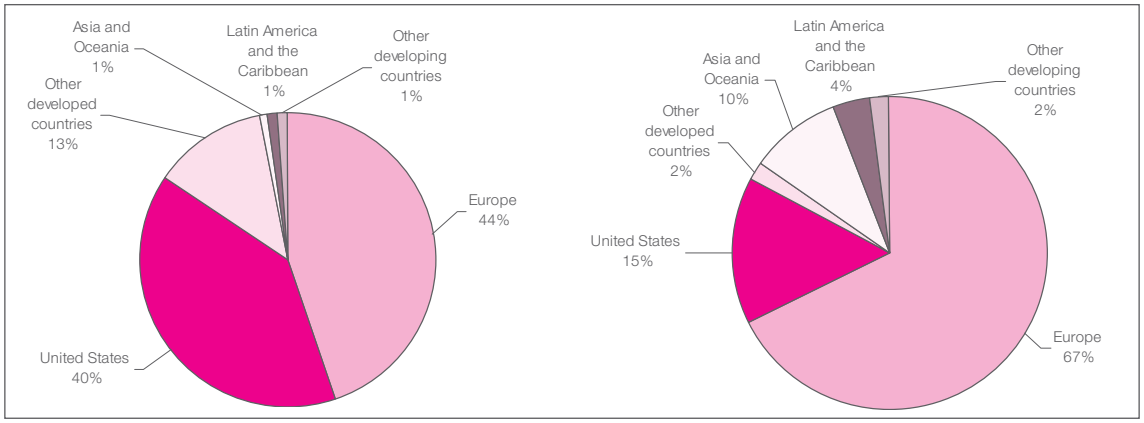
Despite the growing involvement of firms from developing and transition economies in international business, outflows still count for merely 16% of the worldwide outflows. Only since 1992 the developing and transition economies represent over 10% of global outflows, until the mid-1980s their international involvement was negligible. It is notable that the outflows of the developing world are no longer mainly south-south investments as before; investments increasingly go to developed countries (UNCTAD, 2007).

Remark that whereas the outflows of the developing and transition economies amount to only $193 billion in 2006, the inflows amount to $448 billion (see further paragraph 2.1). It is plain that the developed world is by far the main source of FDI, whereas the developing world becomes especially a destination of growing importance for FDI.

1.1.1. Regional shift

Overall, Europe has been the main source of FDI flows since 1980 and the region only strengthened its dominance over time. Whereas 44% of global FDI outflows in the period 1978-1980 originated from Europe, its share in FDI outflows increased to 67% in 2004-2006.

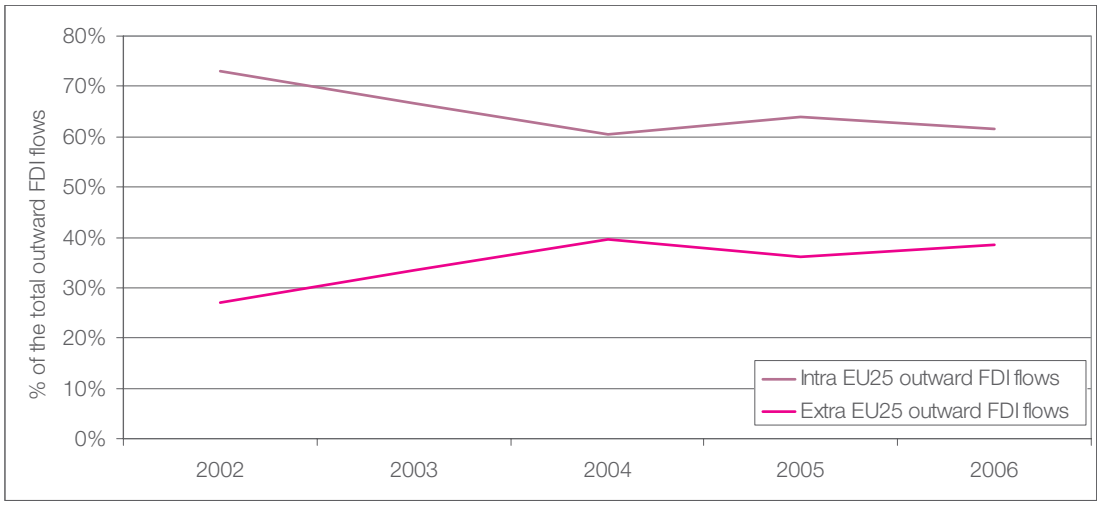
Figure 2: Regional shift in FDI outflows (% of worldwide outflows)



Source: UNCTAD World Investment Report 2006

The European investments mainly involve intra-European investments, especially driven by the ongoing economic integration process within the European Union. However, European firms increasingly invest outside Europe as well. Although the majority of investments still remain intra-EU25, in the period 2002-2006 the percentage of extra-EU25 FDI outflows in total FDI outflows originating from EU25-countries increased from 28% to 39%.

Figure 3: relative importance of intra-EU25 versus extra-EU25 FDI outflows, 2002-2006



Source : Eurostat, own calculations

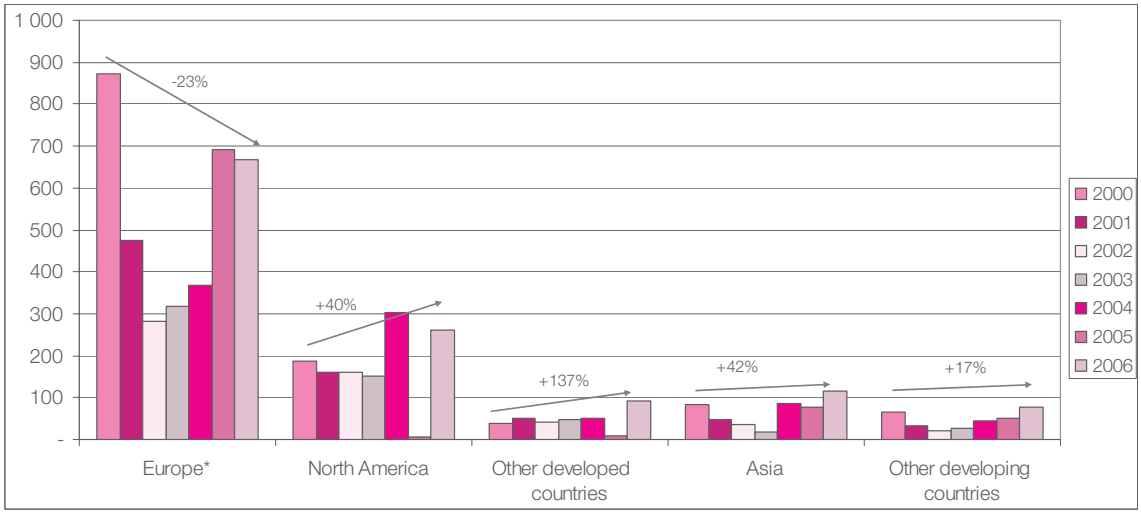
Contrary to Europe, the United States and other developed countries considerably lost importance as sources of FDI over the last 25 years. Whereas US firms and firms from other developed countries accounted for 53% of total FDI outflows in 1978-1980, their share dropped to only 17% in 2004-2006.

In the developing countries, especially Asia and Oceania increased their relative importance as sourcing region of FDI. In 2004-2006 the region accounted for 10% of global FDI outflows, compared to only 1% in 1978-1980. Also Latin America and the Caribbean increased their relative importance over the last 25 years, sourcing 4% of total FDI outflows in 2004-2006 compared to 1% in 1978-1980.

Focusing on the very turbulent period 2000-2006, Figure 4 shows that the high peak in FDI in 2000 mainly originated from European investments. But in 2001 European FDI outflows collapsed to about half the amount that investments reached in 2000. Since 2003 FDI outflows from Europe are on the rise again (except in 2005). However, until now they haven't reached the same investment level as they did in 2000. Europe's FDI outflows amounted to $669 billion in 2006, i.e. $199 lower than in 2000.

Apart from Europe, all other regions were to a much lesser extent hit by the downturn in FDI at the start of the new millennium. Moreover, all have recovered much better over the last few years, reaching higher FDI outflows in 2006 than in 2000.

Figure 4: FDI outflows by region, evolution 2000-2006 (billion $)



Source: UNCTAD World Investment Report 2007

* Europe = Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, United Kingdom, Gibraltar, Iceland, Norway and Switzerland.

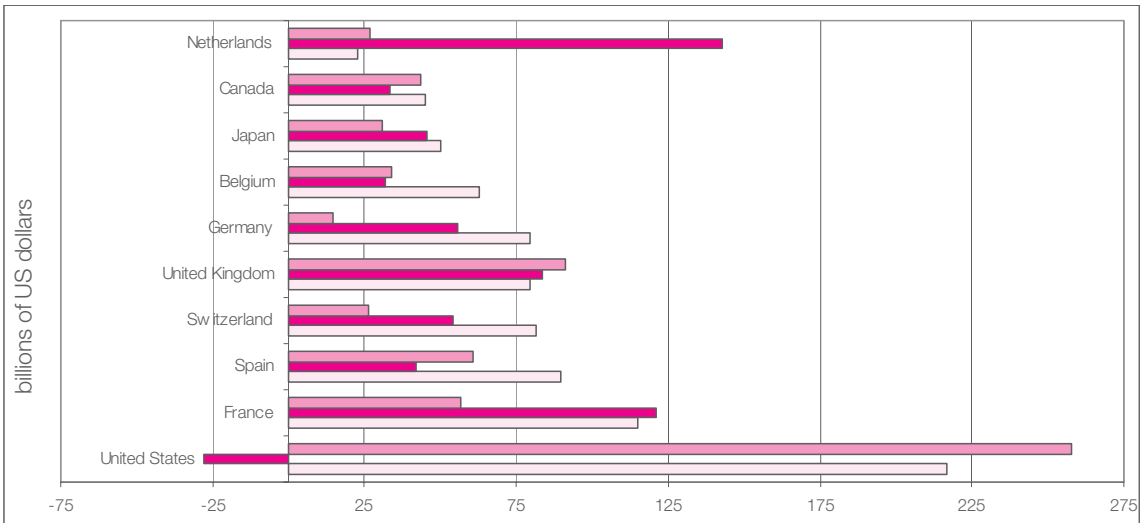
1.1.2. Major investing countries

In 2006 almost 35% of global FDI outflows originated from three countries: the United States ($216,6 billion), France ($115 billion) and Spain ($89,7 billion). The other main sources of FDI in 2006 were Switzerland ($81,5 billion), the United Kingdom ($79,5 billion) and Germany ($79,4 billion).

The outflows consisted for the United States mainly of M&A transaction (for example the acquisition of TDC (a Danish Telephone producer), VNU (a Dutch Publisher) and Philips Semiconductors). In the case of France, the high outflows are due to some main foreign investments. BNP, a French bank, acquired Banca Nazionale del Lavaro (an Italian bank) for $11 billion, Total invested a lot in Cameroon and there was the acquisition of Winterthur Schweizerische (a Swiss life insurer).

A comparison of the 2006 and 2005 figures illustrates that such ranking of individual countries is very volatile and often the result of one or two specific transactions (mostly major mergers or acquisitions).

Figure 5: Largest FDI sources (billion $)



	United States	France	Spain	Switzerlan	United Kingdom	Germany	Belgium	Japan	Canada	Netherlands
2004	257,9	56,7	60,5	26,3	91,0	14,8	34,0	30,9	43,7	26,6
2005	-27,7	120,9	41,8	54,3	83,7	55,5	31,7	45,8	33,5	142,9
2006	216,6	115	89,7	81,5	79,5	79,4	63	50,3	45,2	22,7

Source: UNCTAD World Investment Report 2007

In 2005, the main sources of FDI were the Netherlands ($142,9 billion), France ($120,9 billion) and the United Kingdom ($83,7 billion). The United States – the major source of FDI in 2006 – even faced an negative outflow in 2005 (-$27,7 billion).

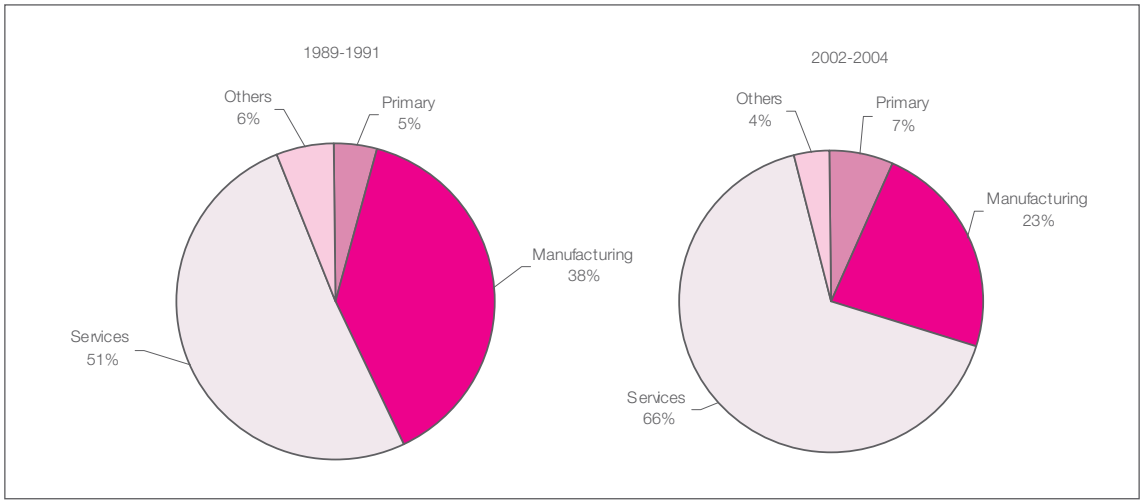
The large outflows of 2005 from the Netherlands mainly come from the merger between Shell Transport and Trading (UK) and Royal Dutch Petroleum (the Netherlands). Moreover, there was the acquisition of Antonveneta by ABN Amro and the acquisition of Arcelor by Mittal Steel. For France,

high corporate investments abroad (for example Total in Nigeria and Michelin in Brazil), important cross-border M&As (Goal Acquistions bought Allied Domecq (UK) for $14,4 billion) and the export of abundant cash resulting from strong corporate profits are the main drivers for the strong increase of FDI outflows. After low levels of FDI outflows from Germany in 2003 and 2004 due to corporate restructuring, outward FDI rose substantially. Strong corporate profits made it possible to invest abroad, mainly through M&As.

1.2. Sectoral distribution of FDI outflows

Firms active in services industries accounted for about two third of total FDI outflows between 2002 and 2004 (i.e. $476 billion). The share of services in total FDI has been rising since the beginning of the nineties, when services firms accounted for half of the investments abroad ($113 billion).

Figure 6: Global FDI outflows – evolution in sectoral distribution



Source: UNCTAD World Investment Report 2006

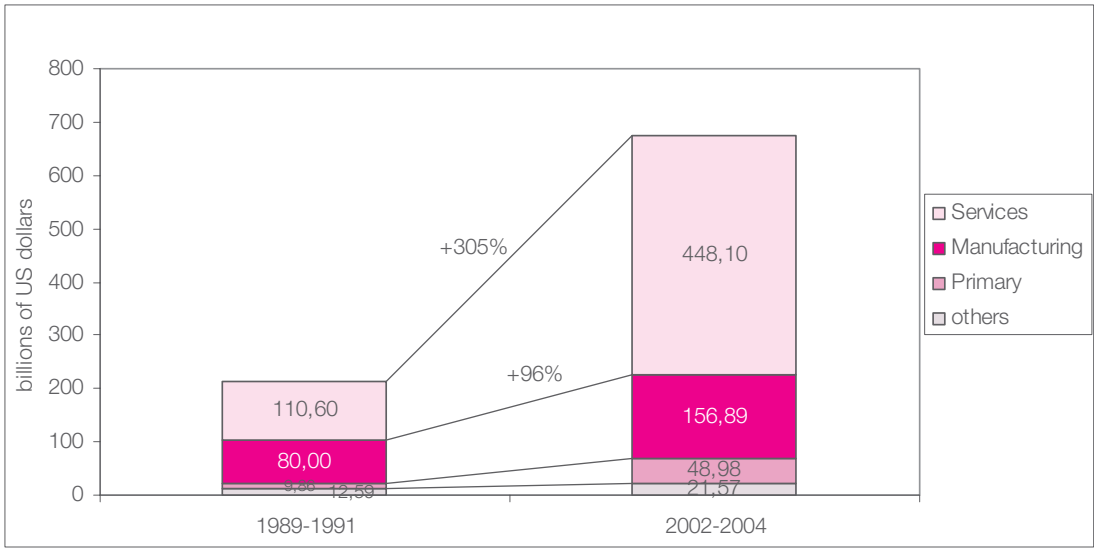
Contrary to services, the share of foreign direct investments by manufacturing firms strongly diminished, from 38% in 1989-1991 to only 23% in 2002-2004. Although the absolute amount of manufacturing FDI did increase from $83 billion in 1989-1991 to $165 billion in 2002-2004, the relative increase (+98%) was less than average (+229%).

With 11% of total FDI outflows, the primary industries and others have a limited involvement in worldwide FDI.

Looking at the sectoral distribution of FDI outflows in developed countries versus developing countries, the above mentioned evolutions do not significantly differ between both groups of countries. But the growth rate of FDI outflows across all sectors in developing countries is on average about three times higher than in developed countries. Especially in services industries FDI outflows from developing countries have been growing at a spectacular pace (+1263%)! Despite these spectacular growth

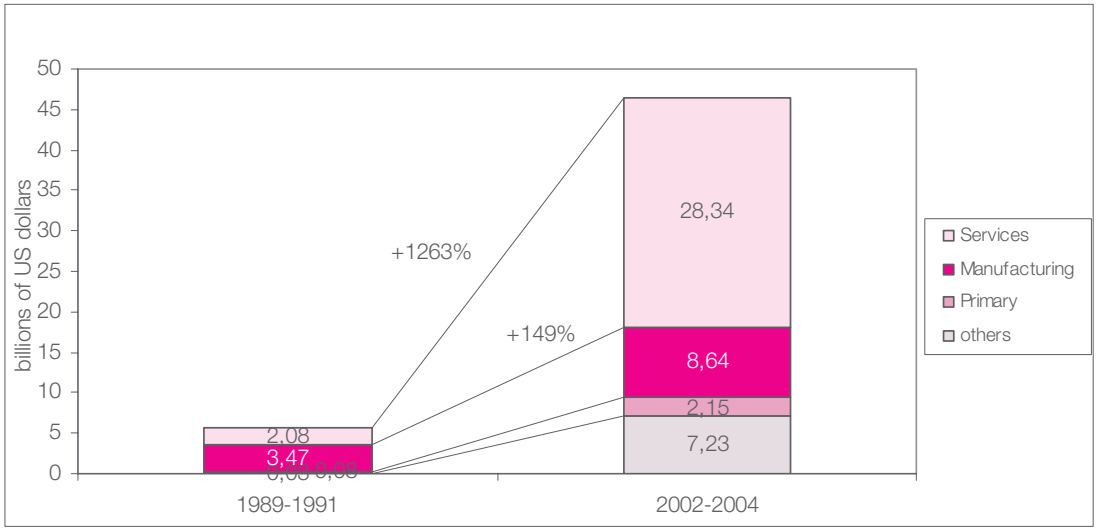
rates, the absolute magnitude of FDI outflows from developing countries' services firms remains very modest when compared to the amount of FDI from firms in developed countries ($28 billion versus $448 billion).

Figure 7: Outward FDI flows - Developed countries



Source: UNCTAD World Investment Report 2006

Figure 8: Outward FDI flows - Developing countries



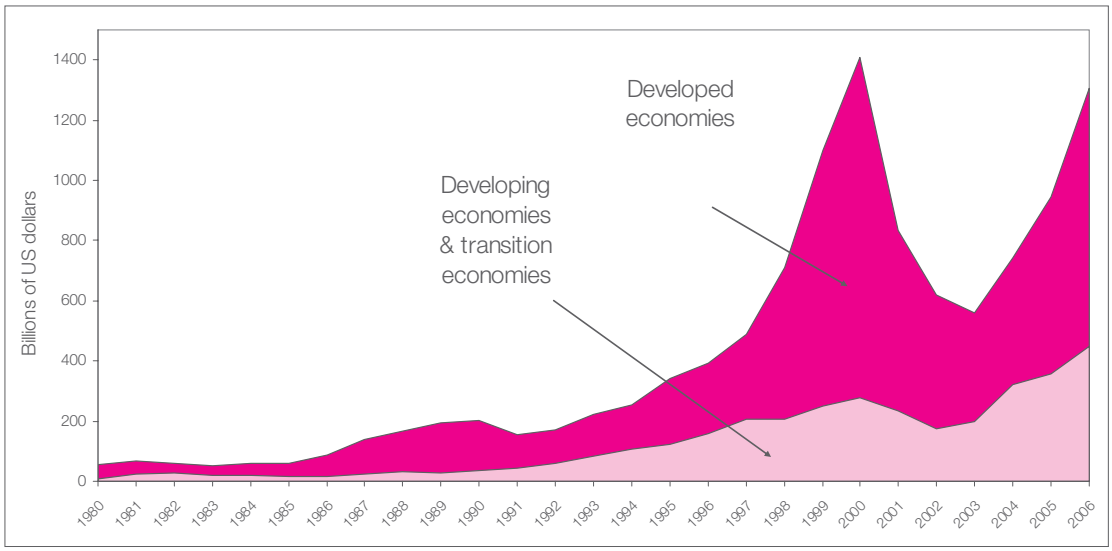
Source: UNCTAD World Investment Report 2006

In line with the evolution in global FDI outflows, global FDI inflows grew substantially over the last three years. Between 2006 and 2005 alone FDI inflows rose from $946 billion to $1.306 billion[2] (38% growth).

2.1. Geographical distribution

In 2006, developed countries' FDI inflows reached $857 billion, or 66% of the world total. The inflow in the developing economies & transition economies reached $448 billion, about 34% of total FDI inflows.

Figure 9: FDI inflows, global and by groups of economies, 1980-2006 (billion $)



Source: UNCTAD World Investment Report 2007

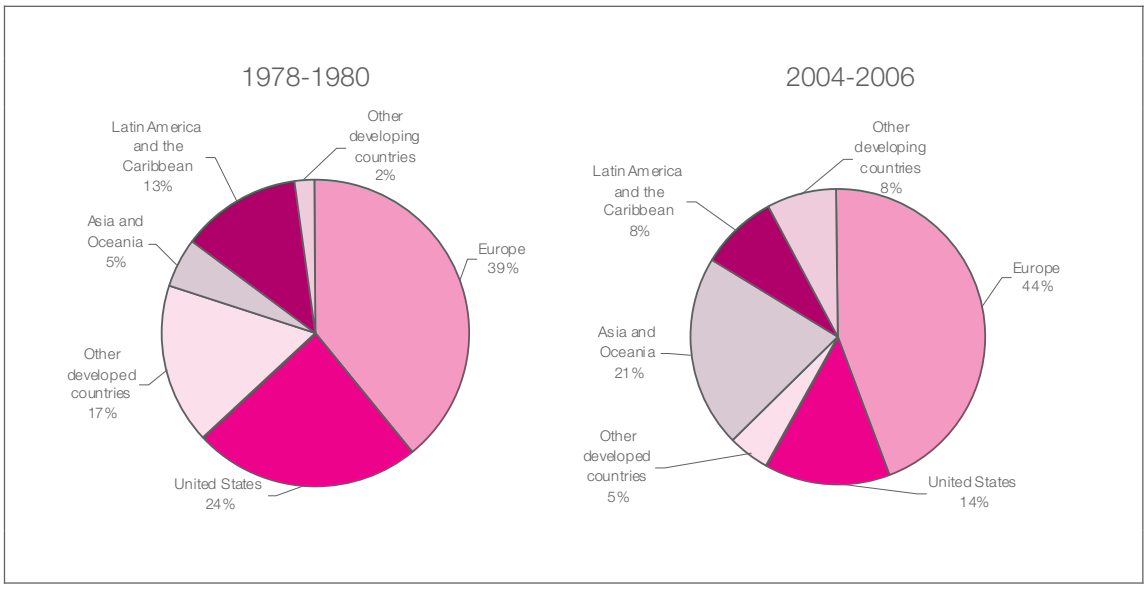
Especially over the last decade, developing economies have strengthened their position in attracting foreign direct investments. A number of factors explain this increased attractiveness. First, the intense competitive pressure in many industries attracts firms to invest in developing countries in order to take advantage of the low labor costs in those countries. Second, the developing countries are considered as key sources of competitiveness for a number of reasons. They often enjoy fast-growing markets, low labor costs etc. A third and last factor is the increasing demand for natural resources such as oil and minerals.

[2] The global FDI inflow data slightly differ from the global FDI outflow data presented in paragraph 1. Especially for the year 2005 a different growth pattern is seen for FDI inflow versus FDI outflow. Whereas global FDI outflows declined by 4,2% between 2004 and 2005, global FDI inflows rose by 2,9% over the same period. The difference in total numbers can be explained by the differences in the way countries compile FDI data. E.g. the United States FDI data take repatriated profits from foreign affiliates of United States firms into account as negative outflows, whereas some host countries of affiliates do not account reinvested earnings in their FDI data.

2.1.1. Regional shift

The European region was by far the largest recipient of FDI flows in the period 2004-2006. The region received 44% of all worldwide inflows. The majority of these investments were done in the EU25. The EU25 attracted $531 billion or 41% of total FDI inflows in 2004-2006. Over the last 25 years Europe has strengthened its position in attracting FDI, as the region attracted only 39% of total FDI in 1978-1980 versus 44% in 2004-2006. Comparing Europe's position as receiving region for FDI with its position as investing region (see paragraph 1.1.1), it is clear that Europe is a major net investor.

Figure 10: Regional shift in FDI inflows (% of worldwide inflows)



Source: UNCTAD World Investment Report 2007

Apart from Europe, all other developed countries considerably lost share in total FDI inflows. The United States alone lost 10% over the period 1978-2006. This decline in FDI inflows especially started at the end of the '90s. One factor which may be at play recently is the low value of the US dollar. Other things equal, the low dollar puts investors based in other currencies at an advantage.

Looking at the developing countries, the upsurge of FDI inflows over the period 1978-2006 (from 20% to 37%) is mainly in favor of the Asian countries. Asia and Oceania accounted for 21% of FDI inflows in 2004-2006, compared to only 5% in 1978-1980. Inflows in Latin America and the Caribbean on the other hand lost importance, attracting only 8% of FDI in 2004-2006.

Focusing on the period 2000-2006, Figure 11 shows that the peak of foreign direct investments in 2000 was mainly destined for Europe and North America. This investment peak was highly related to the dot.com hype at the beginning of the new millennium, which mainly involved American and European firms. As a consequence, those regions were also hit most by the downturn in 2001.

Figure 11: FDI inflows by region, evolution 2000-2006 (billion $)

Source: UNCTAD World Investment Report 2007

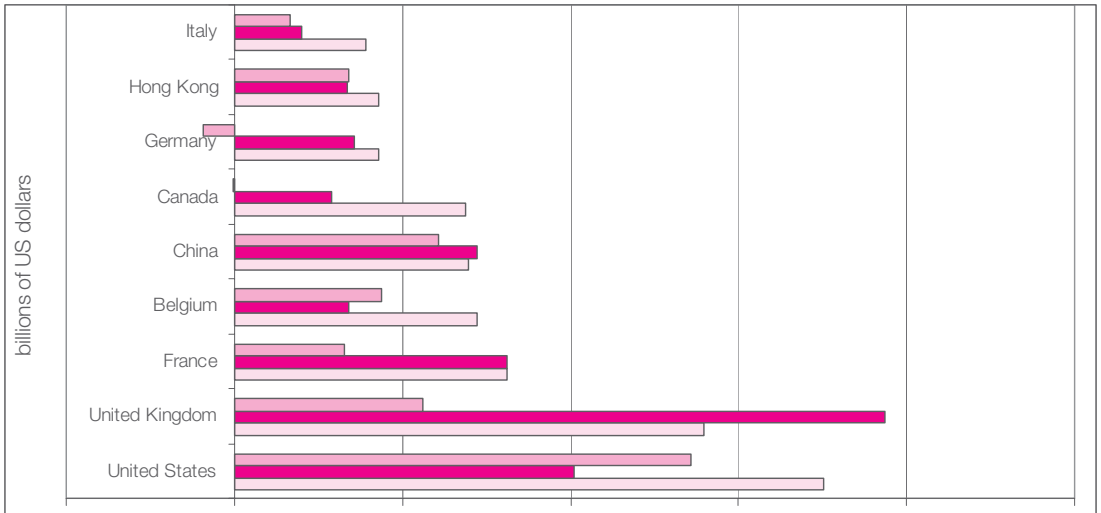
Since 2004 both Europe and North America were able to increase FDI inflows again. The main drivers for the recovery in Europe were growing FDI inflows into Germany, the United Kingdom and the Netherlands. However, none of both regions has been able to recapture the investment level of 2000 yet. Although the FDI inflows reached an amount of $566 billion in 2006, Europe still received 21,5% less FDI inflows in 2006 compared to the situation of 2000. In North America FDI inflows were even 36% lower in 2006 compared to the climax of 2000 (reaching $244 billion in 2006).

Between 2000 and 2002, also Asia and the other developing countries have been confronted with a declining inflow of FDI. But in contrast with Europe and North America, they have recovered well from the downturn and were able to attract higher levels of FDI in 2006 than they did in 2000. Especially Asia grew successfully. Comparing the amount of FDI inflows in 2000 with 2006, the region reported an increase of 75% ($259 billion in 2006 versus $148 billion in 2000). In the other developing countries the growth figure amounted to 48% ($189 billion in 2006 versus $128 billion in 2000).

2.1.2. Major receiving countries of FDI

Looking at FDI inflows at the country level, the United States was in 2006 the largest recipient of foreign direct investments. In 2006, the country received no less than $175,4 billion FDI. The second largest recipient was the United Kingdom ($139,5 billion) followed by France ($81,1 billion), Belgium ($72 billion) and China ($69,5 billion).

Figure 12: Global FDI inflows, top 10 recipients (billion $)



	United States	United Kingdom	France	Belgium	China	Canada	Germany	Hong Kong	Italy
2004	135,8	56,0	32,6	43,6	60,6	-0,4	-9,2	34,0	16,8
2005	101,0	193,7	81,0	33,9	72,4	28,9	35,9	33,6	20,0
2006	175,4	139,5	81,1	72	69,5	69	42,9	42,9	39,2

Source: UNCTAD World Investment Report 2007

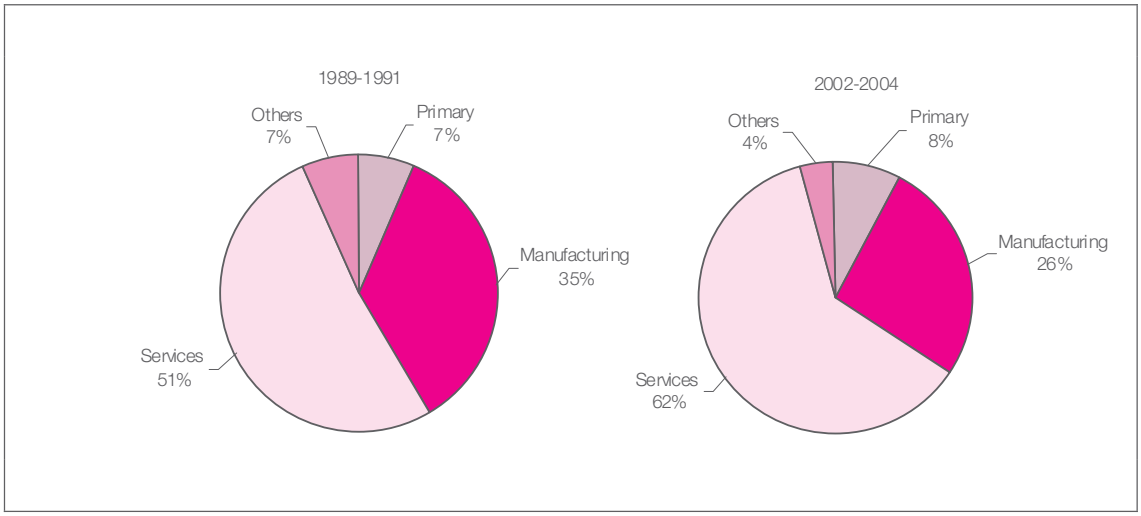
Similar to their influence on FDI outflows, mergers and acquisitions also have a major impact on the distribution of FDI inflows. The high inflows in 2006 in the United States are mainly due to record flows within the chemical industry, a high number of M&As within the mining industry and a lot of cross-border investments of Canadian firms. The upsurge of inflows within the United Kingdom in 2006 was mainly due to some major takeovers (for example the merger of Shell Transport and Trading (UK) with Royal Dutch Petroleum (the Netherlands) and the acquisition of P&O by DP World (United Arab Emirates)). Also France reported a high FDI inflow growth between 2004 and 2006. However, a very high share of the inward FDI stock is localized within holding firms (38% of all inward FDI stock flows in 2003). As there is a high trans-shipping of those investments, there is evidence that this growth is not sustainable.

Noteworthy is the strong increase in FDI inflows in Belgium. With $72 billion in 2006, foreign investments are more than double the amount they were in 2005 ($33,9 billion). This is mainly due to the presence in Belgium of transnational 'coordination centers'. Multinational firms which received the coordination centre status accounted for one third of Belgium's FDI inflows and 36% of the Belgian outflow in the period 1995-2005 (WIR 2007). They are popular with multinational groups, because of the specific fiscal advantages. For example, multinationals pay normal corporate income taxes (at a rate of 33,99%), but they are taxed on their trading profits at the rate of 4%-10% of their total 'business expenses' (WIR 2007).
A second stimulating effort to attract FDI to Belgium is the new tax incentive known as the 'notional interest deduction'. Although the measure was only recently introduced, it is assumed that this new measure also had a positive impact on FDI inflows.

2.2. Sectoral distribution of FDI inflows

FDI flows into services industries rose worldwide by a striking 360% over the period 1989-2004, from $95 to $436 billion. In 2002-2004 services industries accounted for 62% of total FDI inflows, compared to a share of 51% in 1989-1991. Also FDI inflows into manufacturing industries increased with 188% (from $64 billion in 1989-1991to $185 billion in 2002-2004). However, FDI inflows into manufacturing industries grew at a lower than average pace, resulting in a declining share of manufacturing in total FDI inflows over the period 1989-2004 (35% in 1989-1991 versus 26% in 2002-2004).

Figure 13: Global FDI inflows – sectoral distribution



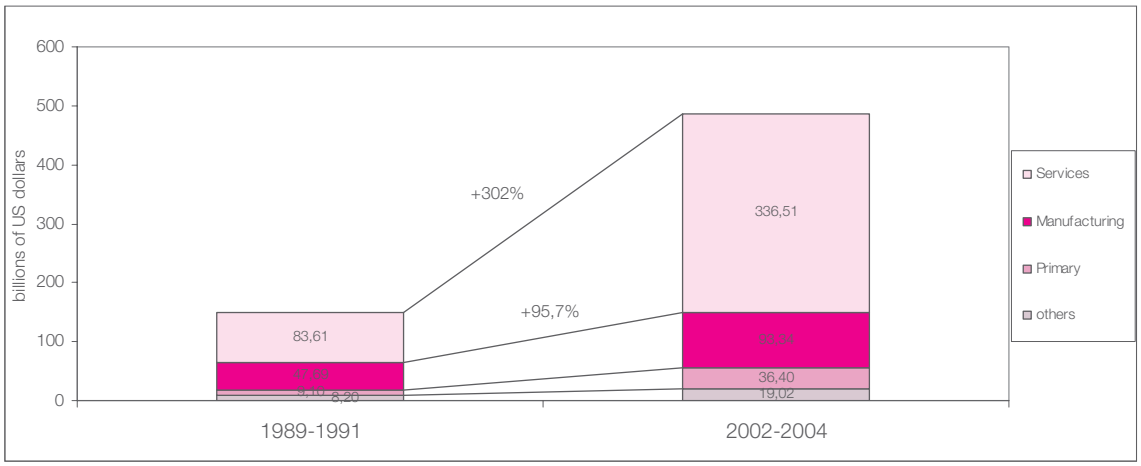
Source: UNCTAD World Investment Report 2006

Comparing the sectoral distribution of FDI inflows in developed versus developing countries, a large difference is notable in the relative importance of manufacturing and services industries.

Already in 1989-1991, services industries were the main recipients of FDI inflows in developed countries (56% of total FDI inflows in developed countries). Manufacturing industries accounted for almost one third of total FDI inflows. In 2002-2004 services industries have only grown in importance, receiving almost 70% of all FDI inflows in developed countries. Manufacturing industries, on the other hand, strongly declined in importance, receiving only 19% of total FDI inflows in 2002-2004.

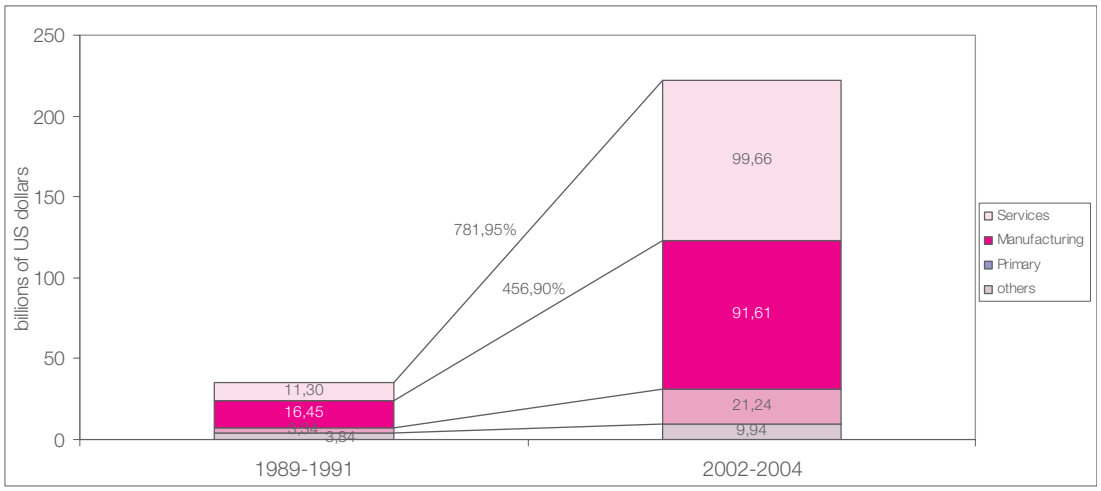
Also in developing countries FDI inflows in services industries have been booming over the years, increasing the share in total FDI inflows from 32% in 1989-1991 to almost 45% in 2002-2004. Holding firms in search for fiscal friendly regimes as well as the increasing outsourcing and offshoring of services to countries like India largely account for this strong trend. Contrary to developed countries, manufacturing industries still are very important recipients of FDI inflows in developing countries. Although also in developing countries their share declined over the years, in 2002-2004 they still account for 41% of total FDI inflows.

Figure 14: Inward FDI flows - Developed countries



Source: UNCTAD World Investment Report 2006

Figure 15: Inward FDI flows - Developing countries



Source: UNCTAD World Investment Report 2006

2.2.1. Focus on manufacturing

Within the manufacturing industries, a distinction can be made between low and high tech manufacturing. Low tech manufacturing includes among others food, beverage, tobacco, textile, wood products, publishing, petroleum products and metals whereas high tech manufacturing includes chemicals, machinery, electronic equipment and motor vehicles.

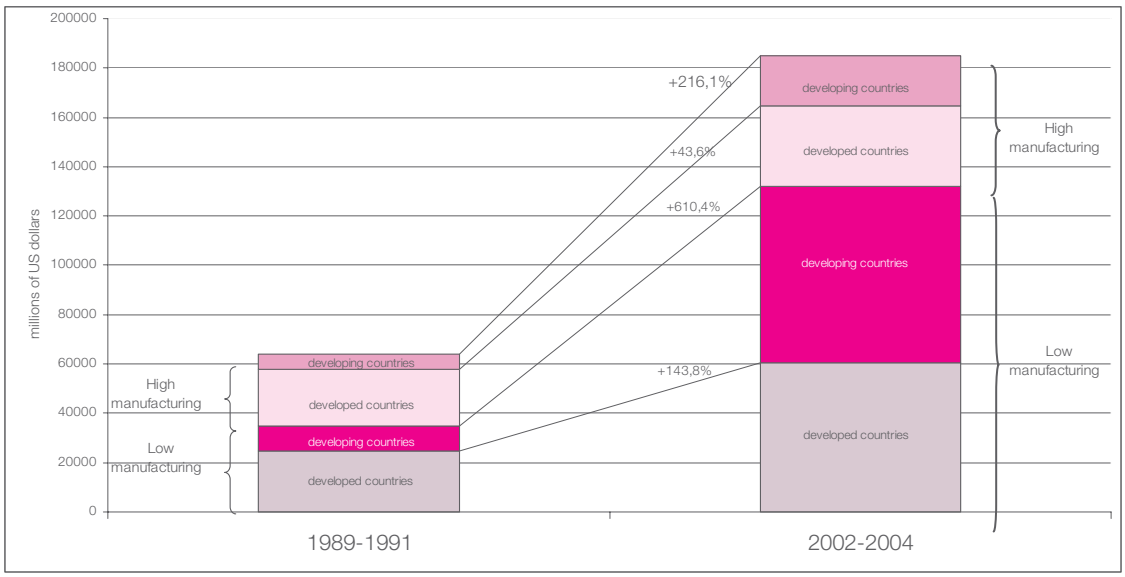
The increase in foreign direct investments in manufacturing over the period 1989-2004 has been largely concentrated in especially low tech manufacturing industries. Whereas low tech manufacturing industries attracted about 54% of worldwide manufacturing FDI in 1989-1991, in 2002-2004 their

share increased to about 71% of total manufacturing FDI. This trend was not limited to developing countries, but also took place in developed countries. In developed countries low tech manufacturing industries accounted for 65% of all manufacturing FDI into developed countries in 2002-2004, compared to 52% in 1989-1991. In developing countries the share of low tech manufacturing FDI in total manufacturing FDI even accumulated to 78% in 2002-2004, whereas they accounted for 61% of all manufacturing FDI in developing countries in 1989-1991 (an increase of 610% in amount).

In 2002-2004 the developing countries surpassed the developed countries in the amount of FDI inflows in low tech manufacturing. The upsurge is mainly explained by increasing FDI to insource natural resources (especially oil products) which are mainly concentrated in developing countries and FDI in automotive and steel industries.

Low tech manufacturing FDI in the developing world has been increasingly attracted into Asia. The continued opening of especially the Chinese and Indian economies has spurred the success of attracting inward FDI. Low wages and taxation rates make those regions especially attractive for low tech manufacturing.

Figure 16: FDI inflows in manufacturing industries, high tech versus low tech industries



Source: UNCTAD World Investment Report 2006

With a share of 61% of total high tech manufacturing FDI, the developed countries remain the most important recipient of FDI in high tech manufacturing industries. Over the period 1989-2004, the amount of high tech manufacturing FDI increased by 44%. Among the drivers for growth, the new EU members (especially the Czech Republic, Hungary, Poland and Slovakia) are positioning themselves as preferred locations for automotive production (mainly due to their low average wages compared to the other and older EU countries). Furthermore, the new EU Member States continue to privatize, reduce corporate income taxes and provide incentives to the firms in order to attract more FDI.

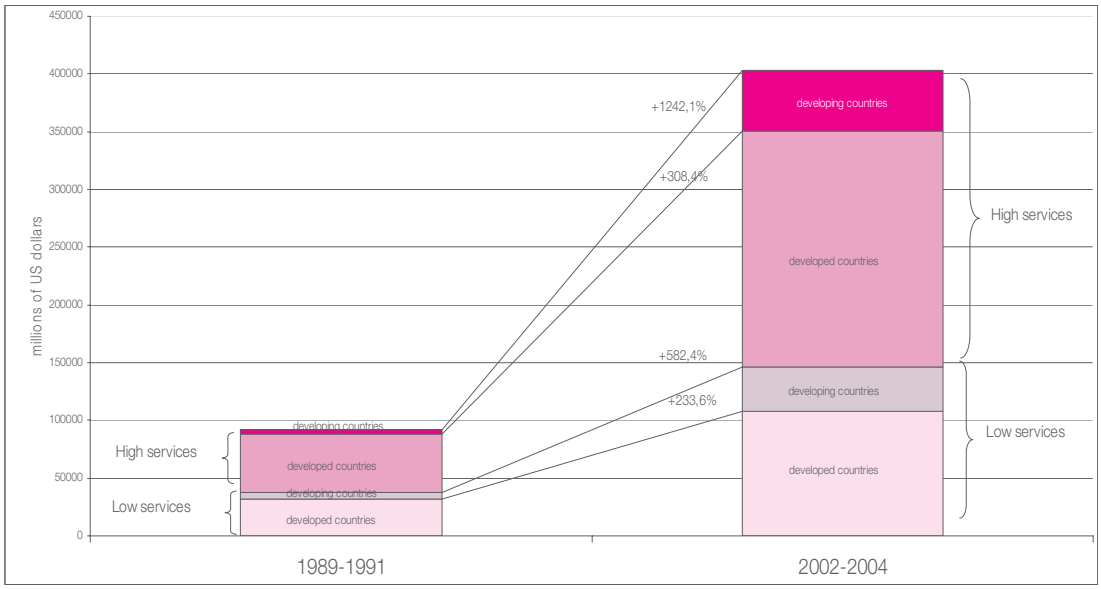
However, the dominance of the developed world in high tech manufacturing has been shrinking over the years, as in 1989-1991 they still accounted for 78% of worldwide high tech manufacturing FDI inflows. As developing countries are moving up the value chain, the type of activities that they are able to attract, shifts from low tech manufacturing to more advanced technologies. As such, Vietnam attracted firms such as Intel (which will build semiconductors) and China attracts investments in more advanced technologies (for example Airbus which will set up an assembly plant). Also the shift towards services (see Figure 15) fits within this context.

2.2.2. Focus on services

Similar to manufacturing, the next paragraph focuses on the evolution of low and high knowledge intensive services within the services industry. Low knowledge intensive (LKI) services include trade, hotels, restaurants, transport and public administration whereas high knowledge intensive (HKI) services include finance, business activities, education, health and social services.

The services industry grew worldwide by a factor equal to 4,4. Although the importance of FDI flows into services grew substantially in general, the overall composition changed. Cross-border M&As in services surged to $8 billion in 2005 from $0,5 billion in 2004. It is especially within finance that large M&As took place (68% of the deals), followed by transport, storage and communications (19%). The lion's share of important cross-border M&As involves firms of the developed countries.

Figure 17: FDI inflows in services industries, high versus low knowledge intensive services



Source: UNCTAD World Investment Report 2006

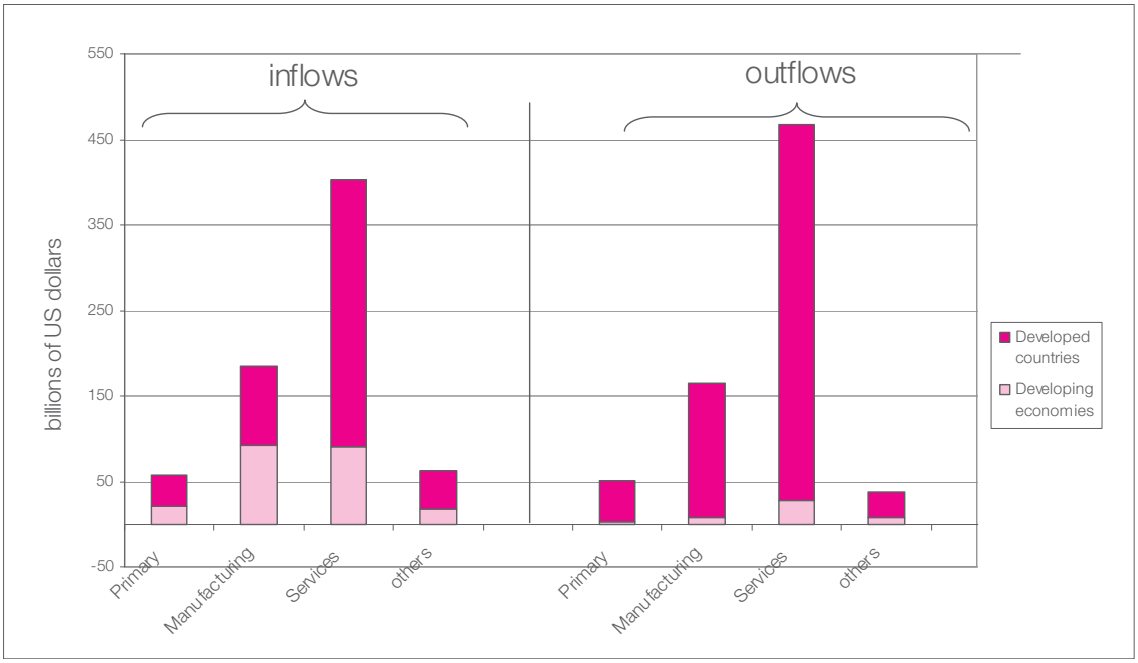
The developed countries remain by far the main recipients of FDI within both high (HKI) and low knowledge intensive services (LKI), attracting resp. 79% and 74% of total HKI and LKI services FDI.

Although developing countries show much higher growth rates over the period 1989-2004 in both segments, their involvement in attracting services FDI – both LKI and HKI - remains rather limited. The recent trend of service off shoring seems to have, so far, a relatively low impact on total FDI flows. However, as countries in South, East and South-East Asia are further opening up their economies to FDI, this has a positive influence on the attraction of services FDI, especially within banking, telecommunications and real estate. Other developing countries which focused on privatizing also succeeded well in attracting FDI in services. For example, power and water industries (Bahrain and Oman), transport (Jordan) and telecommunications (Turkey). The United Arab Emirates reported an unprecedented upsurge in inward FDI within services (especially real estate, tourism and financial services).

2.3. FDI inflows and outflows: a comparison

Comparing the sectoral and regional distribution of FDI outflows and inflow, it is clear that in all four sectors (primary, manufacturing, services and other) the developed countries are net investors and the developing countries are net recipients. Especially in manufacturing industries, the developing countries' share in FDI outflows is limited, whereas they do attract about half of total FDI inflows. The same pattern is shown in services FDI. The relatively large share of FDI inflow of services into the developing countries is mainly associated with holding firms looking for tax friendly environments and a growing off shoring of services.

Figure 18: FDI in- and outflow per sector and country type



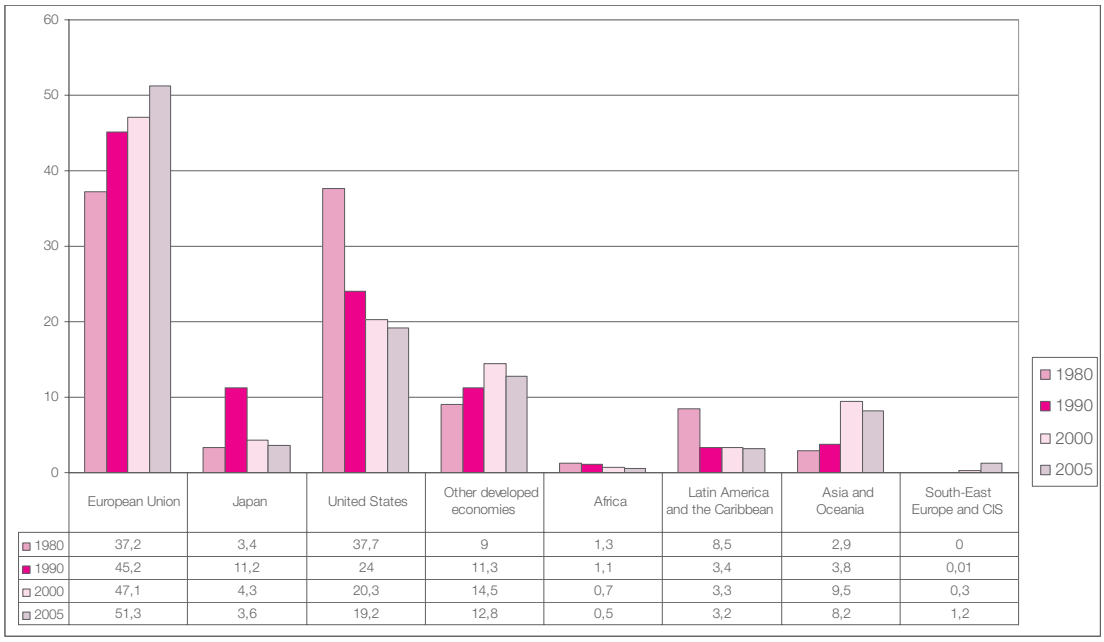
Source: UNCTAD World Investment Report 2006

Cumulating net FDI flows over the years, the FDI stock data summarize all outstanding foreign direct investments at a specific moment.

3.1. Outward FDI stock

In 2005, the European Union has by far the largest amount of outstanding FDI. More than half of all outstanding foreign direct investments in the world (51%) originate from the European Union. In 1980 their share only amounted to 37,2%, a little below the share of US outward FDI stock. The American dominance in FDI that existed after WW II, has been eroded over the years, as especially European firms expanded internationally and thus built up a constantly growing FDI stock. In 2005 US FDI stock dropped to less than 20% of total FDI stock.

Figure 19: Outward FDI stock – change in regional distribution (in %)



	European Union	Japan	United States	Other developed economies	Africa	Latin America and the Caribbean	Asia and Oceania	South-East Europe and CIS
1980	37,2	3,4	37,7	9	1,3	8,5	2,9	0
1990	45,2	11,2	24	11,3	1,1	3,4	3,8	0,01
2000	47,1	4,3	20,3	14,5	0,7	3,3	9,5	0,3
2005	51,3	3,6	19,2	12,8	0,5	3,2	8,2	1,2

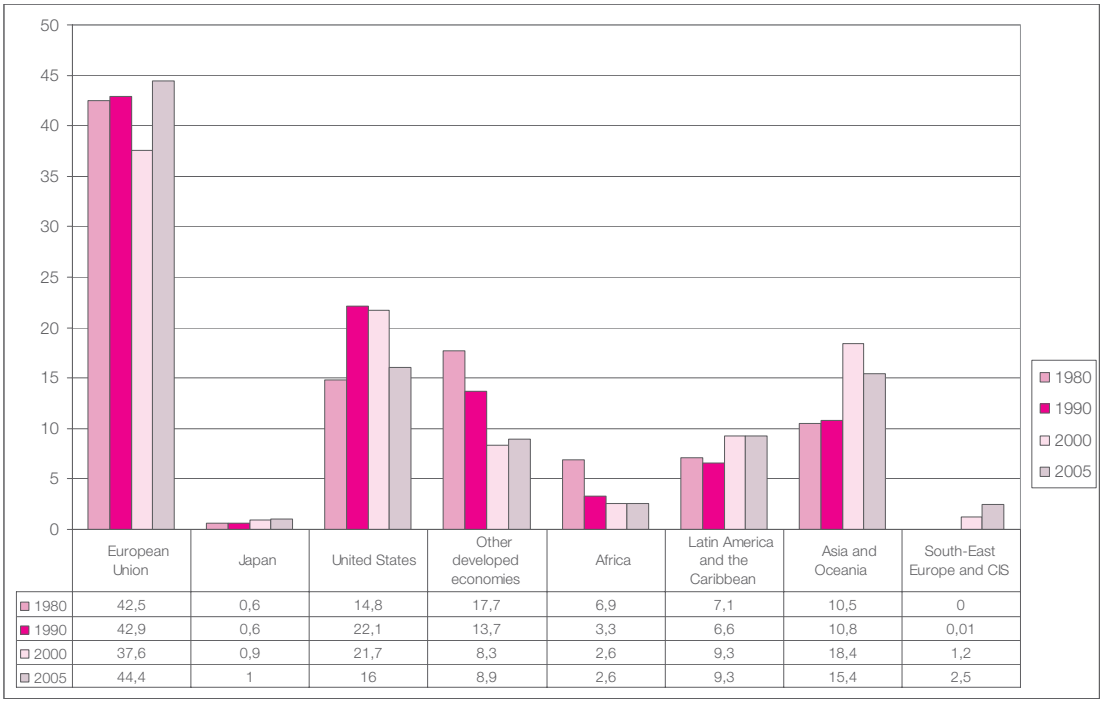
Source: UNCTAD World Investment Report 2006

Japan's share in total outward FDI stock remained relatively the same over the period 1980-2005, with the exception of 1990 when their share rose to 11%. After this rise, large disinvestments followed in the '90s, diminishing the share again to 4% in 2000. In line with the growing involvement of Asia and Oceania in FDI outflows, outward FDI stock increased between 1980 and 2000 by almost 7%. Between 2000 and 2005 some disinvestments made the outward FDI stock decline with 1%.

3.2. Inward FDI stock

Firms in the European Union not only have the largest outstanding FDI stock, most of the worldwide FDI stock is also located in the European Union. The share of the EU in the world inward FDI stock amounted to almost 45%, a 1% increase since 1980. It is clear that the European integration plays a major role in the large share of the European Union in total inward FDI stock.

Figure 20: Inward FDI stock – change in regional distribution (in %)



	European Union	Japan	United States	Other developed economies	Africa	Latin America and the Caribbean	Asia and Oceania	South-East Europe and CIS
1980	42,5	0,6	14,8	17,7	6,9	7,1	10,5	0
1990	42,9	0,6	22,1	13,7	3,3	6,6	10,8	0,01
2000	37,6	0,9	21,7	8,3	2,6	9,3	18,4	1,2
2005	44,4	1	16	8,9	2,6	9,3	15,4	2,5

Source: UNCTAD World Investment Report 2006

Japan has a small but rather constant FDI stock (from 0,6% to 1,0%) whereas the United States reported a rise in the period 1980-1990 (+ 7%), followed by a decline during the period 1990-2005 (- 6,1%). Also the other developed countries have been reporting a rather significant decline of FDI inward stock (from 18% to 9% of the world's stock inflow). Latin America and the Caribbean (+2%), Asia and Oceania (+ 5%) and South-East Europe and CIS (+ 3%) have been enjoying a rise in their share of the worldwide inward stock, while Africa reported a decline (-4% in the observation period). Especially Asia and Oceania's total inward FDI stock is building up. In 2005 the region reached a share of total inward FDI stock that is comparable to the United States' share.

Total FDI flows are composed of a diverse range of investment projects by firms, involving alternative modes of entering foreign countries. The most common entry modes are mergers, acquisitions and greenfield investments. For foreign investments, the first two entry modes are often used to quickly acquire market share in a foreign market or industry or to increase market share.

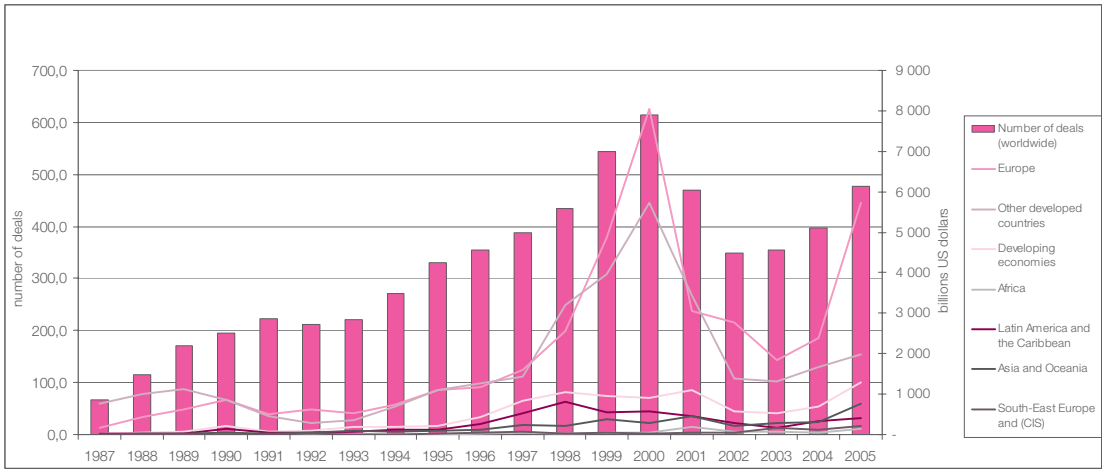
For the host country, the impact of a greenfield investment project versus a merger or acquisition is expected to be more positive, especially in the short run. Whereas greenfield FDI can be added directly to the stock of productive capital and can bring a direct rise of employment, a merger or acquisition only represents a change within the ownership. Therefore, investment promotion agencies have a strong preference for greenfield projects. On the long term, the impact of FDI on host countries is difficult to distinguish by mode of entry (WIR 2000).

4.1. Mergers and Acquisitions

The growth of global FDI flows over the last two decennia has been largely spurred by a significant increase in cross-border M&As, both in value and number of deals. Since 2002 the number of deals worldwide is growing significantly, after a decline between 2000 and 2002. Although the number of deals has been rising since 2002, it is only since 2004 that we have observed a rise in terms of value.

Europe is by far the region with most M&A activities in the world, both in terms of sales and purchases. The value of the M&As in Europe, sales and purchases, are almost equal in 2005 ($445 and $413 billion) and about two to three times higher than in the other developed countries (among other US, Japan, etc.). In the exceptional year 2000, Europe reported even as much as four times more M&A purchases in terms of value than the other developed countries.

Figure 21: Cross-border M&As sales, by region/economy 1987-2005 (in billion US dollars)



Source: UNCTAD World Investment Report 2006

Figure 22: Cross-border M&As purchases, by region/economy 1987-2005 (in billion US dollars)

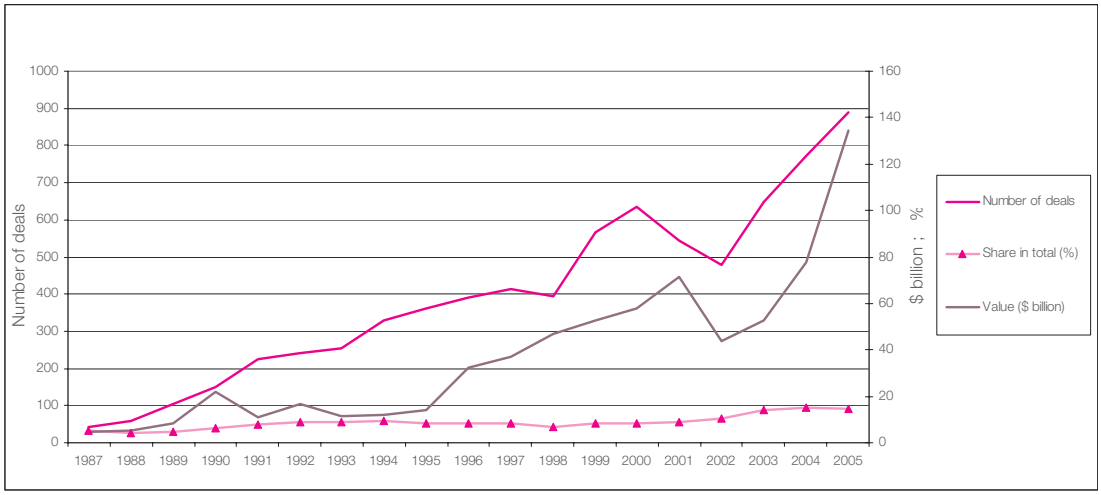
Source: UNCTAD World Investment Report 2006

Overall, Asia faced the largest increase in M&As, both in term of sales and purchases, but it has to be noticed that the total share of the developing economies remains limited. Also, the upsurge of deals in the year 2000 is not reflected in the value of purchases in the developing world. It seems that the year 2000-boom only had an impact on the value of sales within the other developed countries and especially had an impact on the value of both the sales and purchases within Europe.

Focusing on the last two years, a new boom in M&As is seen. To some extent, the present boom is comparable to the boom of 1999-2001. The average number of deals is similar and the top three target countries, the United Kingdom, the United States and Germany, are the same. However, in the recent boom the share of the primary sector has been rising significantly, to a large extent due to important deals within the mining and petroleum industries and this mainly at the expense of services. Furthermore, the underlying factors of the present boom have changed. The 'dotcom bubble' and the importance of the financial markets no longer play key roles. The present boom, as mainly believed, is driven by strategic choices of firms as a result of economic growth (whereas before opportunistic factors played a more important role). As a consequence, fewer industries are involved in the present boom and most cross-border M&As take place within the same industry. One exception to this trend is the growing importance of private equity firms which invest in almost every industry.

Private equity funds - and hedge funds - are relatively new sources of FDI. However, over the last decade their relative share in total M&A activities has increased. In 2005, 889 out of the total number of 6.134 M&A deals worldwide were concluded by a collective investment fund. These deals represented a total value of $135 billion or 19% of all M&As. It is assumed that the investments made by these funds mostly have a shorter time horizon than investments made by traditional transnational corporations have. This might imply that the current FDI growth may be not sustainable.

Figure 23: Cross-border M&As by collective investment funds 1987-2005

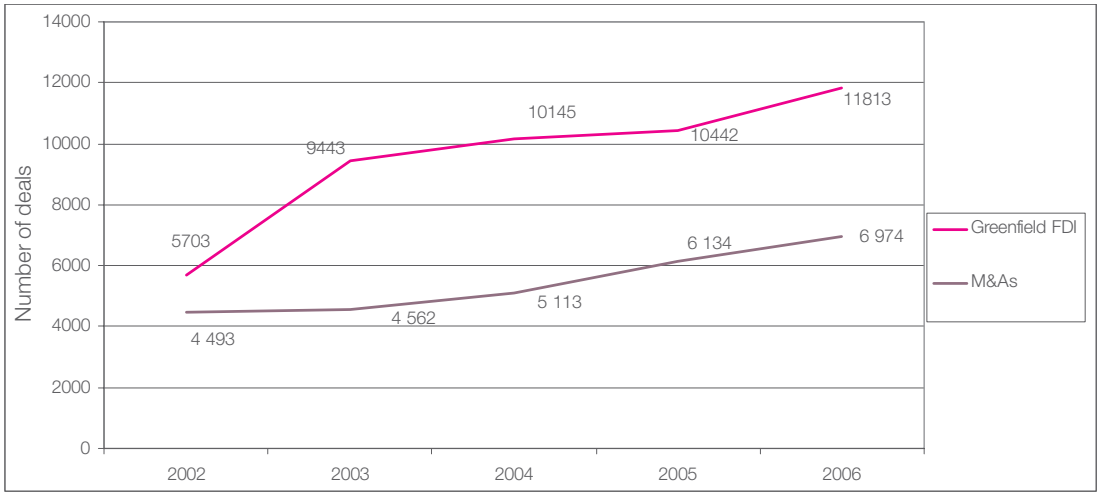


Source: UNCTAD World Investment Report 2006

4.2. Greenfield investments

Although about three quarters of the accumulated value of all FDI projects consists of M&As - leaving greenfield FDI projects with a modest share in total value - the number of greenfield projects surpasses greatly the number of M&A projects. In 2006, 11.813 greenfield investments took place. Compared to the situation of 2002, the number of greenfield investments more than doubled. The number of M&A deals grew by 55% over that same period.

Figure 24: Worldwide greenfield FDI vs M&As (in number of deals)

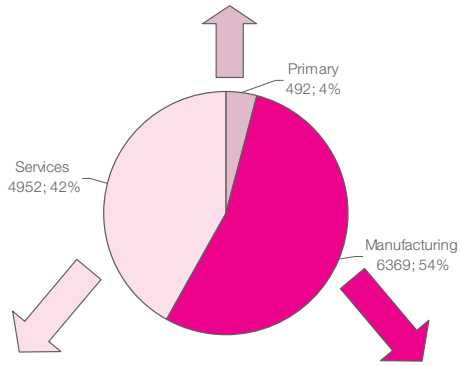


Source: WIR 2007

Of all 11.813 greenfield investments concluded in 2006, 54% or 6.369 investment projects were made in manufacturing industries. Within the manufacturing industries, especially firms in the electrical and electronic equipment sector conducted greenfield investments (about 1.160 investments in 2006), followed by the motor vehicles and other transport equipment firms (955 investments) and the food, beverage and tobacco industries (744 investments). 42% of the investment projects (4.952 projects) were concluded in the services sector. Especially business activities (which include for example consulting) generated many greenfield investments (2.918 in 2006 or almost 60% of all services investments). Also the financial services reported numerous greenfield investments (1.101 in 2006). The primary sector reported 492 greenfield investments in 2006, all of them concentrated in the energy sector.

Figure 25: Number of greenfield investments per sector, 2005-2006

Number of greenfield projects in the primary sector		
	2005	2006
Energy	469	492



Number of greenfield FDI projects in the services sector		
	2005	2006
Business activities	2400	2918
Financial services	793	1101
Hotel, tourism and leisure	406	480
Telecom services	238	275
Health care	125	178

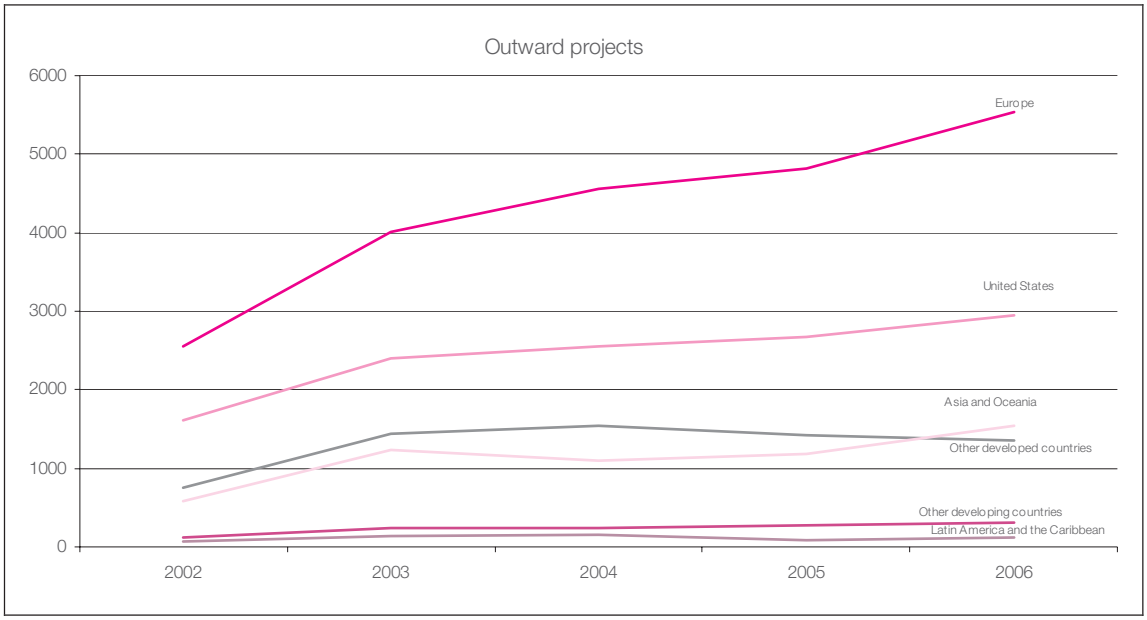
Number of greenfield FDI projects in manufacturing		
	2005	2006
Electrical and electronic equipment	1194	1160
Motor vehicles and other transport equipment	905	955
Food, beverage and tabacco	693	744
Chemicals and chemical products	607	649
Consumer products	409	591
Machinery and industrial goods	474	565
Textiles	409	498
Metals/mining	598	469
Plastics and rubber	328	341
Building materials, ceramics and glass	191	214
Wood and wooden products	203	183

Source: World Investment Report 2007

Looking at the origin of greenfield investments, European firms are by far the main source of outward greenfield investment projects. Between 2002 and 2006 Europe represented persistently almost half of all outward greenfield investments. The United States – the second most important source – only

accounted for half the number of projects compared to Europe. Although they account for only 13% of all worldwide outward projects, the share of Asia and Oceania rose strongly between 2002 and 2006 (by factor 1,7).

Figure 26: Outward greenfield investment projects by region, 2002-2006



Source: World Investment Report 2007

Greenfield investment projects originating from BRIC countries have been growing strongly during the past five years. Compared to 2002, the number of outward Indian projects rose by a factor 3,3, the number of Russian projects by a factor 3 and the number of Chinese projects by a factor 3,6. In 2006 India accounted for the largest number of projects (291 projects), followed by the Russian Federation (156 projects), China (132 projects) and Brazil (37 projects).

Table 1: Greenfield FDI projects originating from BRIC countries

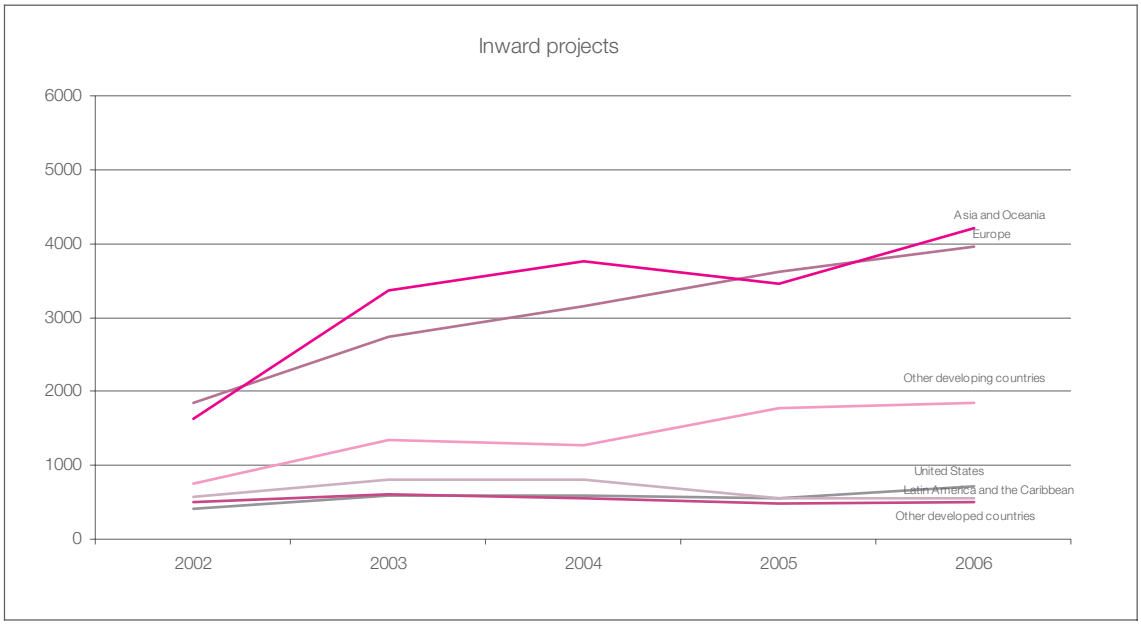
	2002	2003	2004	2005	2006
India	90	176	202	217	291
Russian Federation	51	120	109	139	156
China	36	108	101	138	132
Brazil	20	40	40	34	37

Source: World Investment Report 2007

Despite the impressive growth in the number of greenfield investments originating from BRIC countries, until now they still account for only 5% of all greenfield projects. The majority of the investments still originate from Europe and other developed countries (mainly the United States, Japan, etc.).

The regional distribution of inward investments projects is very different than the regional distribution of outward projects. Whereas there was a clear dominance of Europe as source of greenfield investments, this is not so in hosting greenfield investment projects. In attracting new greenfield investments, Asia and Oceania are in a very strong position. They attract on average 35% of all worldwide greenfield investments. Apart from 2005, the region took the leading role in attracting new greenfield investments. Europe attracted over time about 30% of all worldwide projects. The number of projects rose between 2002 and 2006 by 115% which is significantly lower than the 159% rise of Asia and Oceania. The United States play only a limited role in attracting new greenfield investments as they attract only 6% of all worldwide projects and reported a 72% increase between 2002 and 2006. The Latin American and the Caribbean countries play both in inward and outward Greenfield investments a very modest role.

Figure 27: Inward greenfield investment projects by region, 2002-2006



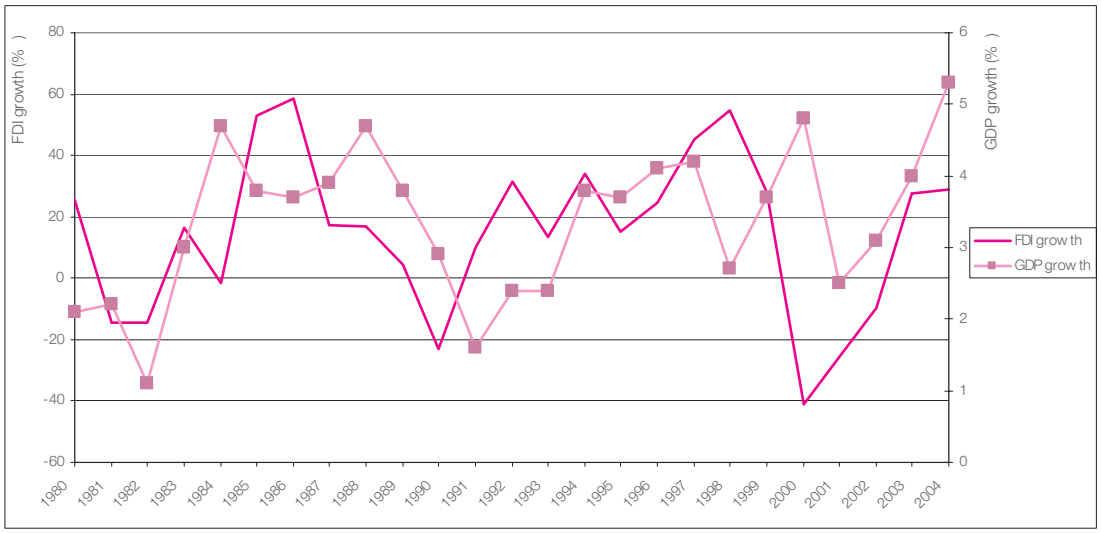
Source: World Investment Report 2007

A noteworthy greenfield investment destination is the Russian Federation. Due to its particular market characteristics (e.g. relatively strong trade barriers, government protectionism, etc.), it is believed that an increasing number of greenfield investments will take place in Russia. As greenfield investments are often the single entry possibility in Russia and the Russian market is of increasing importance, the number of projects will continue to rise.

The changes in inward and outward FDI do not alter at random. Foreign investments are closely connected to broader economic indicators.

Figure 28 illustrates how changes in global FDI inflows have been moving closely together with fluctuations in GDP over the last two decades. In general changes in FDI growth seem to be always approximately two years ahead of changes in GDP growth. E.g. from 1986 until 1990 FDI growth diminished strongly, whereas GDP growth declined only between 1988 and 1991. The same evolution is visible in 1998 when FDI growth started declining, two years before the decrease in GDP growth.

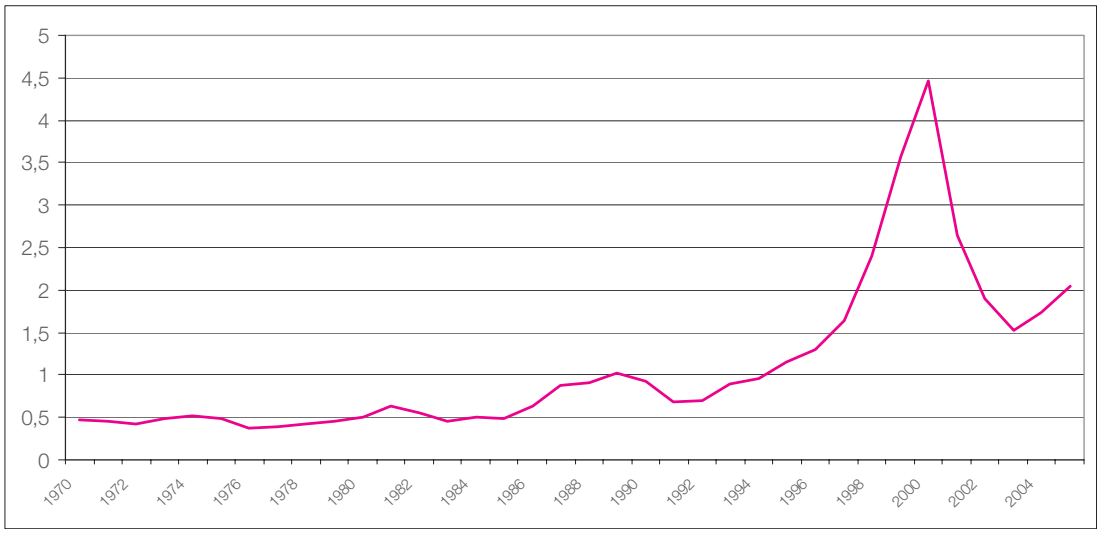
Figure 28: Global FDI and GDP growth rates (in %)



Source: UNCTAD World Investment Report 2006

Notwithstanding the fact that the growth of global FDI and worldwide GDP growth move closely together, the growth of FDI inflows outpaced the growth of income (measured via GDP). Whereas FDI inflows were less than 1% of total world GDP, in 2005 the amount of FDI inflows was around 2% of world GDP. In 2001 the ratio FDI inflows/world GDP even amounted to 4,5%.

Figure 29: Global FDI inflows / World GDP (in %)



Source: World Bank

6.1. Factors influencing future FDI flows

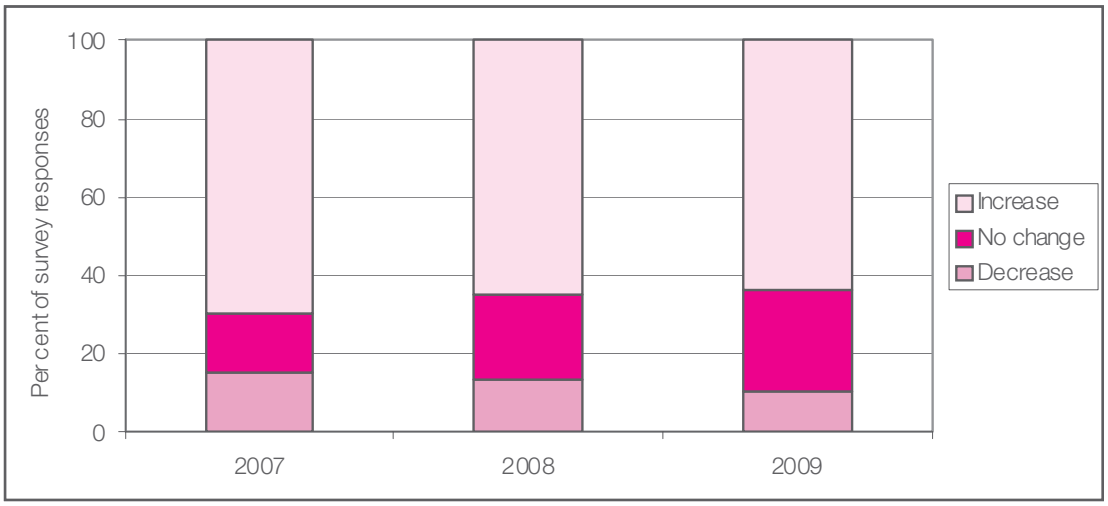
As firms are in continuous need to improve their competitiveness, they will remain looking for low-cost production and supporting services including low-cost R&D locations (see below). Therefore, greenfield investments and M&As are especially expected to rise in the developing world. Other factors which prospect a continued growth are continued economic growth (especially within the developing countries), policy liberalization and increased corporate profits. Those increasing profits will stimulate stock prices which will spur the value of cross-border M&As. It is also believed that the number of M&As will rise, mainly by TNCs - as the role of private equity and hedge funds stay unclear.

FDI in natural resources is expected to grow, mainly due to high demand from developing economies and possibilities for new profitable opportunities in the primary sector (e.g gas and oil in Algeria) (WIR 2006).

Factors that are expected to suppress FDI growth are: high oil prices, rising interest rates, increased inflationary pressure, exchange rate fluctuations and geopolitical tensions in some parts of the world which implies uncertainty. Also overregulation and trade barriers are main challenges to the globalization of activities, as there are often worries about nationalism and protectionism (WIR 2006).

An UNCTAD survey with TNCs (Transnational corporations) and IPAs (Investment promotion agencies) found that most respondents are convinced that FDI flows will increase in the next years. Only a limited share of respondents of expressed that they expect a decrease. Also other surveys (McKinsey, EIU, JBIC) report a predicted increase in FDI.

Figure 30: Prospects for global FDI flows 2007 - 2009



Source: WIR 2007

The 2007 A.T. Kearney survey on FDI prospects shows that the number one development that could negatively impact FDI decisions, is the slowdown in the U.S. economy. As much as 55% of all respondents in the 2007 survey noticed to be concerned by this slowdown, while 45% is anxious about the U.S dollar volatility. Also rising interest rates (39%), the increased government regulation (38%) and the volatility of the energy prices are worrying elements in the FDI decision process.

Figure 31: Economic developments affecting global investors

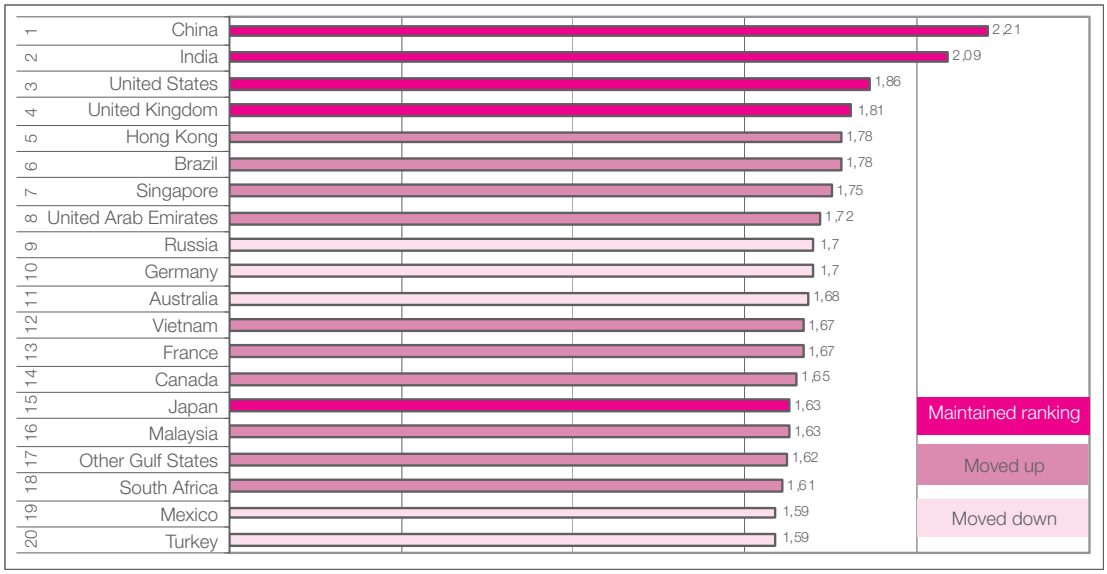
Source: A.T. Kearney

6.2. Regional prospects

According to UNCTAD, Asia and Eastern Europe have most positive FDI prospects. It is expected that the recent boom in offshoring (especially in Research & Development – see below) will further move investments to Asia and Eastern Europe. Latin America is likely to maintain its recent FDI recovery. The flows to Africa will remain stable at a modest level. The developed countries are expected to see more FDI recovery. The United States will remain the most attractive destination for FDI in the developed world. However, expectations are less bright for the major European economies.

The UNCTAD prospects are in line with the results of A.T. Kearney's Confidence Index 2007. Also here Asia seems to be the continent with the best FDI prospects. The FDI Confidence Index shows unprecedented levels of investor confidence in emerging markets, led by China and India. Six of the top ten countries are emerging markets. A seventh, Hong Kong, represents an access point to the key market of China. In the developed world, especially the United States and the United Kingdom are able to retain a strong position. Compared to 2006, Hong Kong, Brazil, Singapore and the United Arab Emirates enjoy increasing FDI confidence whereas Russia, Germany and Australia moved down in the ranking. In line with the UNCTAD prospects, the Confidence Index shows that the outlook for Western Europe is not that bright compared to the emerging markets, due to increasing competition and protectionism.

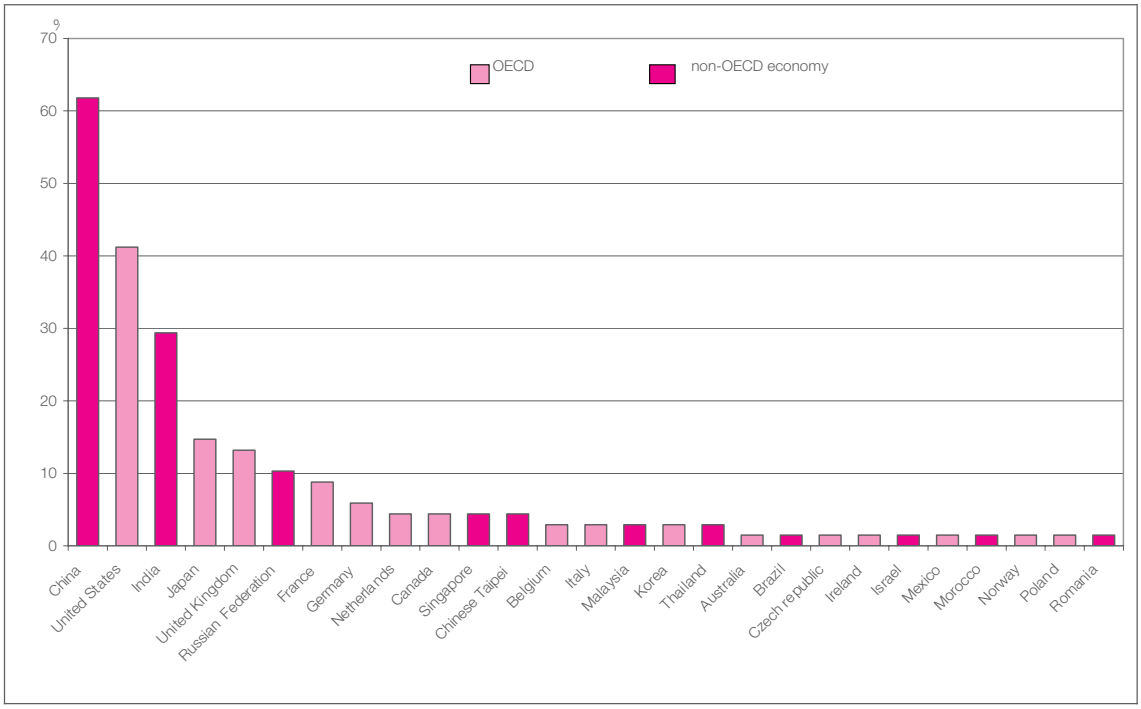
Figure 32: FDI confidence index 2007



Source: A.T. Kearney

Focusing on R&D activities, until now the majority of R&D facilities remained in the developed world, whereas production facilities were increasingly offshored to developing countries. However, FDI prospects show that this might change in the foreseeable future. An UNCTAD survey on attractiveness of countries for setting up R&D facilities shows that China was by far the most attractive country for setting up a new R&D facility in 2005, followed by the United States and India. The survey clearly illustrates the changing perception of global investors with regard to the possibly changing position of emerging countries in the global value chain of firms. It might be expected that especially China and India will receive a strongly growing share of FDI in the future, and not only in the manufacturing industries.

Figure 33: Most attractive countries for setting up new R&D facilities



Source: UNCTAD (2005), OECD (2006)

PART 2: FOREIGN DIRECT INVESTMENTS

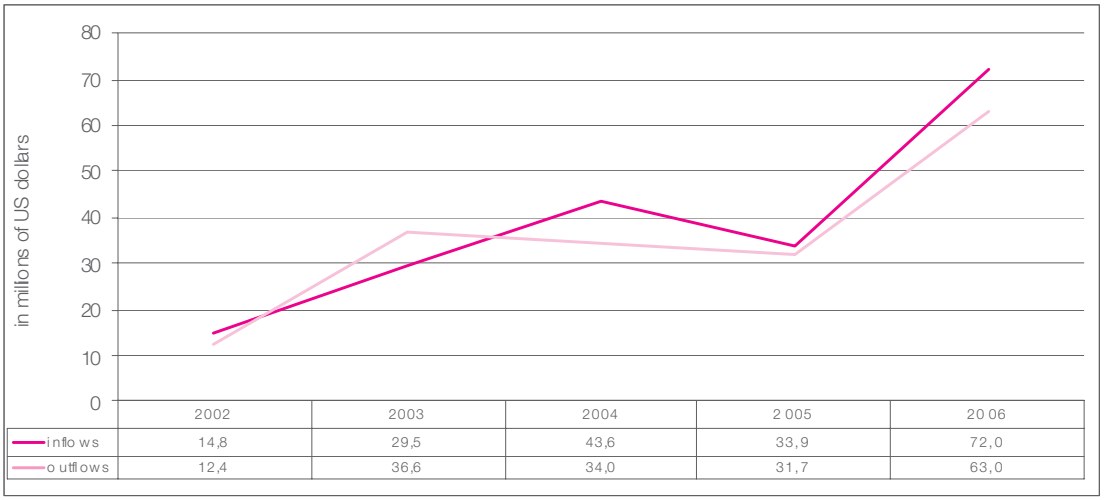
PART 2: FOREIGN DIRECT INVESTMENTS IN FLANDERS AND BRUSSELS

The first part of this report has clearly illustrated the dominant role of Europe in foreign direct investment. However, the prospects suggest that Europe's position might weaken over the next decade.

This part will focus on Belgium – and more specifically Flanders and Brussels - and look how foreign investments have evolved in these regions, located in the centre of Western Europe. After a brief discussion of FDI flows in Belgium, the level of analysis will shift towards Flanders and Brussels. While the intention was to focus on Flanders in this report, due to the fact that a very large share of foreign firms operating in Flanders has their company seat in Brussels, the Brussels region has been included in the results. A unique database that has been constructed by the research team, allows for a detailed analysis of the presence of foreign firms in Flanders and Brussels and their impact on the economy.

Over the period 2002-2006[3] FDI inflows and outflows in Belgium have been multiplied by a factor close to five, resulting in Belgium's high ranking both as investing and as receiving country for FDI. Only in the year 2004-2005 FDI flows went down.

Figure 34: FDI in- and outflows in Belgium (2002-2006)



	2002	2003	2004	2 005	20 06
inflo w s	14,8	29,5	43,6	33,9	72,0
o utflows	12,4	36,6	34,0	31,7	63,0

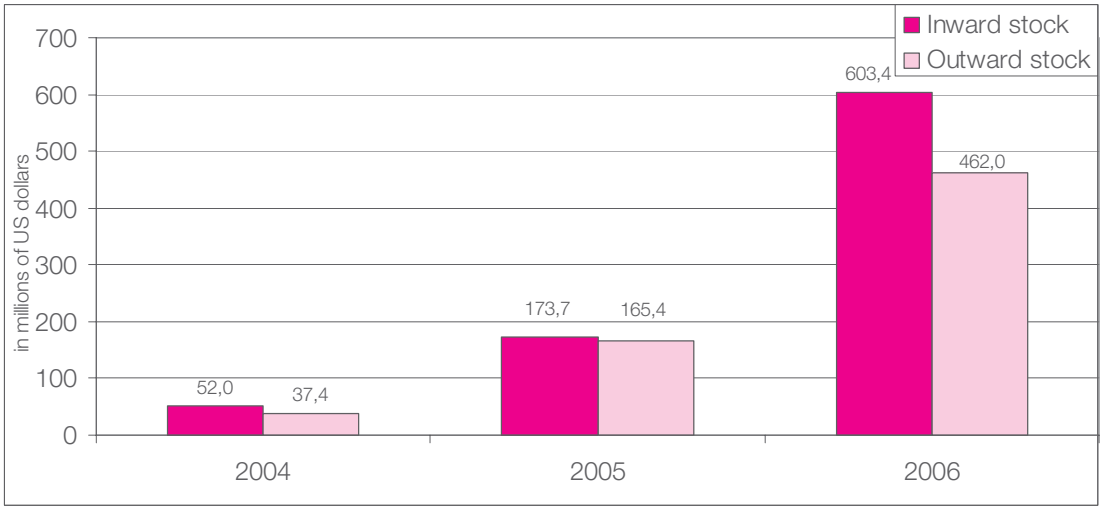
Source: WIR 2007

A number of factors might explain the recent strong increase of FDI in Belgium. First of all, coordination centers of foreign firms located in Belgium have been enjoying a tax friendly treatment which enhanced their presence and activities. Secondly, a policy instrument known as 'notional interest deduction' has been introduced since 2005. This instrument allows firms to deduct a percentage of their equity capital from their taxable income. It is believed that this new instrument has played a prominent role in the recent increase in FDI.

Following the high FDI flows, also in- and outward FDI stocks increased strongly between 2004 and 2006. Whereas the outward FDI stock amounted to $335 billion in 2004, this value rose to a stunning $462 billion in 2006. Inward FDI stock rose from $426 billion in 2004 towards $603.4 billion in 2006.

[3] Before 2002 FDI data on Belgium were not reported separately, but together with Luxemburg.

Figure 35: In- and outward FDI stock in Belgium



Source: WIR 2007

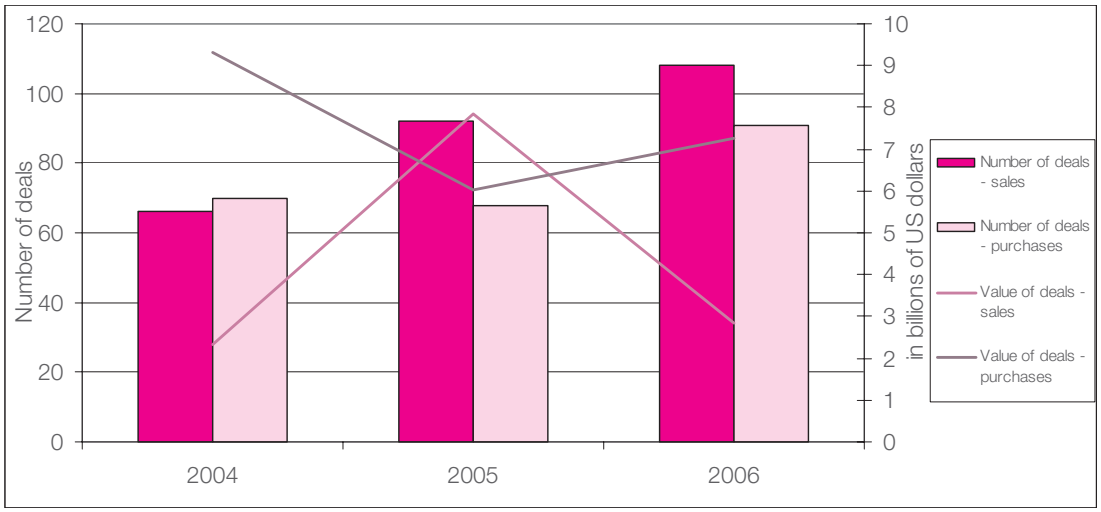
1.1. Role of M&A activity in Belgian FDI

In line with the global boom in M&A activities, also in Belgium the number of deals – both sales and purchases – has been rising from 2004 onwards. However, especially the purchases have been growing at a slower pace than worldwide growth in M&A deals.

Looking at the value of M&A deals in Belgium, between 2004 and 2005 the value of purchase deals dropped significantly, meaning that the average takeover abroad by a Belgian firm was smaller in value in 2005 compared to 2004. Between 2005 and 2006 the value of purchases rose again. However, the rise in value was not in line with the increase in number of deals, suggesting that between 2005 and 2006 the average value of purchase deals in Belgium dropped even further.

Focusing on the sales deals, the value of sales did not follow the same growth path of sales deals. In 2006 the value of sales collapsed from $ 8 billion in 2005 to only $ 3 billion in 2006, despite a higher number of sales deals.

Figure 36: Number and value of M&A-deals (sales and purchases)



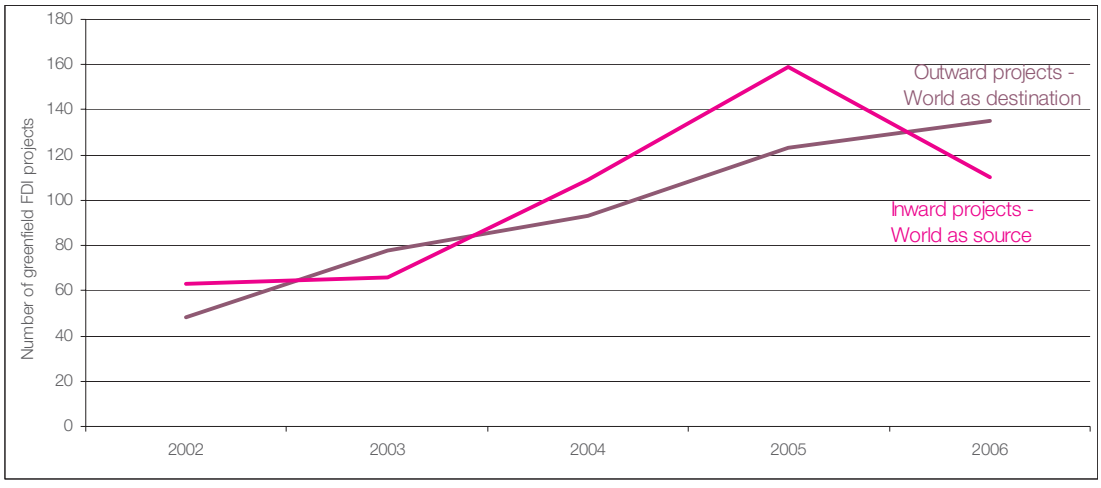
Source: WIR 2007

1.2. Greenfield FDI projects in Belgium

The number of greenfield investments in Belgium by foreign firms has been rising between 2002 and 2005, but dropped again after 2005. In 2006 Belgium could not take advantage of the rising number of inward greenfield investments in Europe (cfr. Figure 27). Overall, the number of projects in Belgium almost doubled between 2002 and 2006 (from 63 in 2002 towards 110 in 2006).

The number of outward greenfield investment projects (i.e. greenfield investments abroad by Belgian firms) had been rising between 2002 and 2006. Overall, the number of projects almost tripled (from 48 in 2002 towards 135 in 2006).

Figure 37: Number of greenfield FDI projects in Belgium



Source: WIR 2007

Foreign firms play an important role in Flanders' economy. Sleuwaegen et al. (2004) found that in 2001, although only 8% of all firms in Flanders were foreign owned, they accounted for more than half of total employment in manufacturing. The purpose of this section is to update our knowledge on foreign firms in Flanders and Brussels and give a detailed description of the economic importance of foreign firms in Flanders[4] anno 2007. To this end a unique dataset has been constructed on foreign owned firms in Flanders, following the same methodology that has been used in Sleuwaegen et al. (2004). This allows for a comparative analysis over time.

2.1. Structure database

To identify all firms in Flanders and Brussels that are foreign owned[5], several data sources have been combined. The starting point was the list of foreign owned firms that have been identified by Sleuwaegen et al. in 2004. This list has been updated/extended using information from three other data sources: Belfirst, Graydon and Dun & Bradstreet's Global Reference Solution. We refer to Sleuwaegen et al. (2004) for an extensive description of the methodology used to integrate the information from the different data sources. As such 9.383 foreign owned firms in Belgium have been identified.

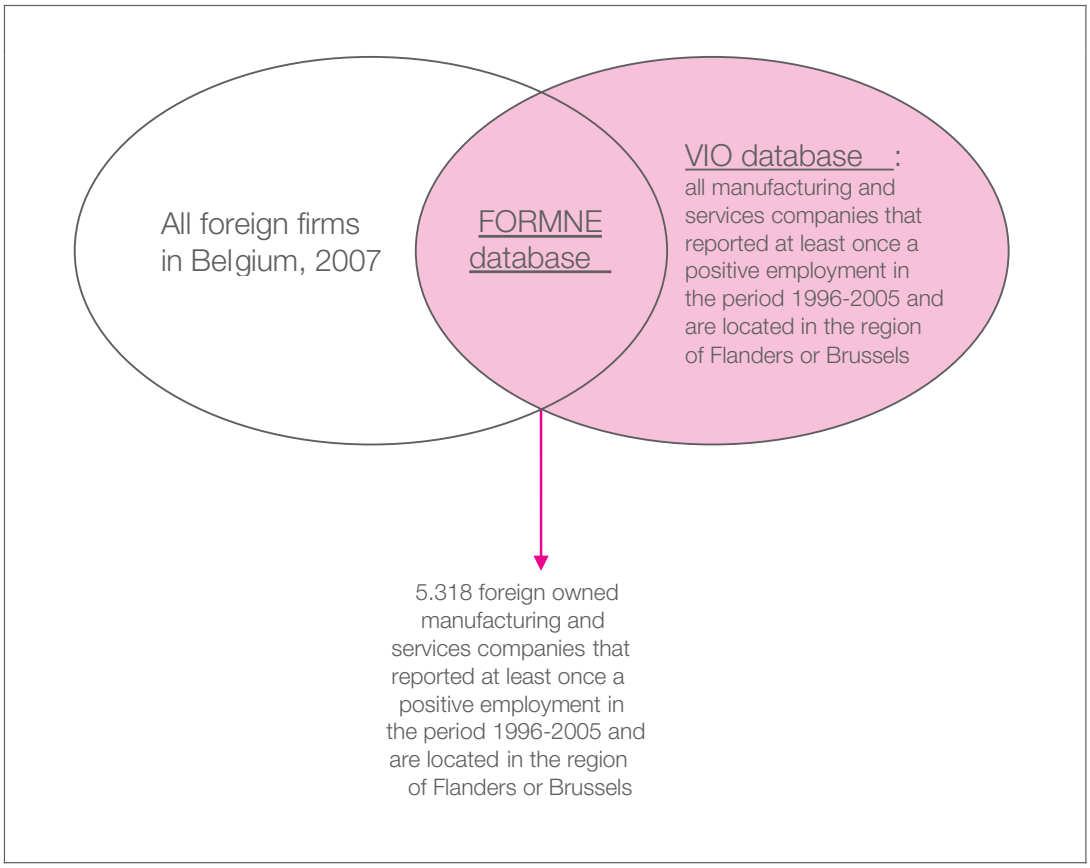
In a second step this group of firms has been linked with a database containing the balance sheets of all manufacturing (nace 10 to 45) and services (nace 50 to 74) firms that reported at least once a positive employment in the period 1996-2005 and are located in the region of Flanders or Brussels (called 'VIO database' hereafter). This resulted in a database, containing 5.318 firms in Flanders that were foreign owned in the year 2007[6] (called 'FORMNE database' hereafter). This group of 5.318 firms is the subject of the analyses in the next paragraphs.

[4] The study acknowledges the economic importance of Brussels in the figures of Flanders. Therefore, the data includes Flanders and Brussels.

[5] The definition of 'foreign investment in Flanders or Brussels' used in this report corresponds to the definition used by the Nationale Bank van België, Federal Planbueau, OECD and IMF. It is *"every direct or indirect link between an investor and a firm based in Flanders or Brussels which provides the foreign investor with a significant influence on the governance of this firm. This leads to a lasting interest of the foreign investor into the firm. The minimum capital participation of the foreign investor in the firm has to amount to 10%"*.

[6] Remark that the FORMNE database does not contain the branches of foreign firms in Flanders, nor the foreign owned banks. For both groups of firms no or limited firm data are available.

Figure 38: Definition of FORMNE database

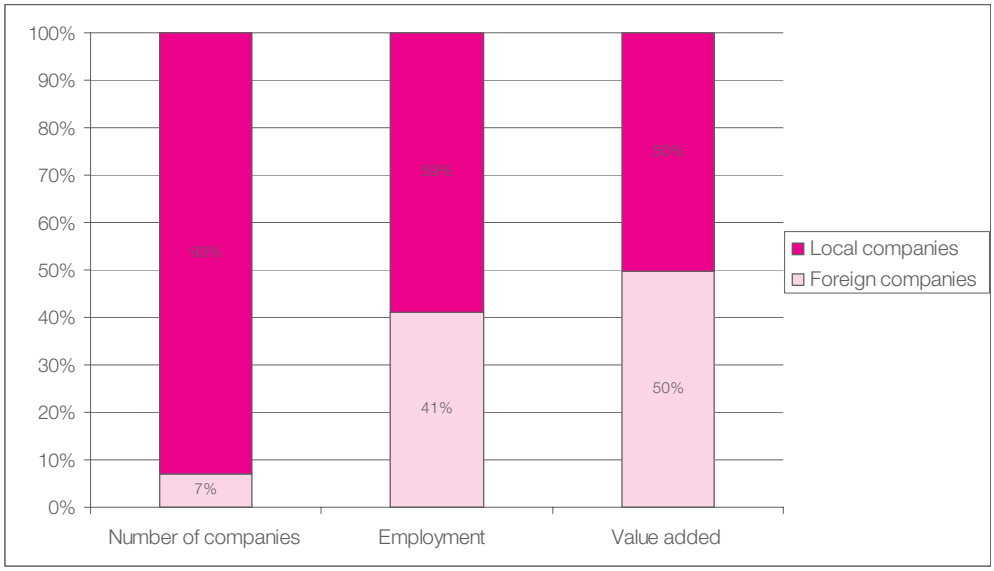


To allow for an analysis of the evolution in foreign investments in Flanders and Brussels, as well as a comparison of foreign owned firms with local firms, two other databases have been used in this report. The first involves the database that has been constructed by Sleuwaegen et al. (called 'FORMNE 2004 database' hereafter), the second database is a subset of the VIO database, containing only the local firms (called 'LOCAL database' hereafter).

2.2. Characteristics of foreign firms in Flanders and Brussels

In 2007, 5.318 firms in Flanders and Brussels were foreign owned. This is about 7% of all active manufacturing (nace 10 to 45) and services (nace 50 to 74) firms that reported at least once a positive employment number in the period 1996-2005. Together they employed 589.840 people or 41% of total employment of the data sample. With € 57,4 billion they accounted for half of the total value added in Flanders and Brussels.

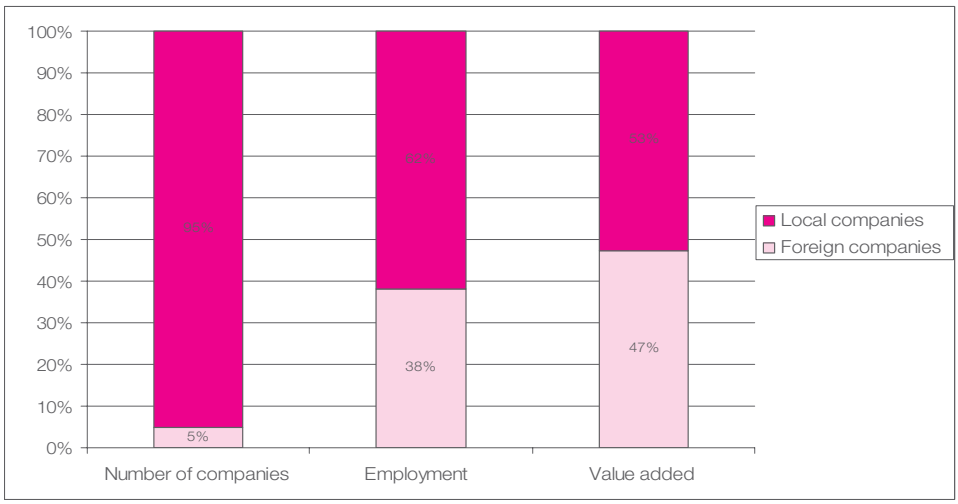
Figure 39: Economic importance of foreign owned firms in Flanders and Brussels, 2007



Source: FORMNE 2007 database, VIO database (Vlerick Leuven Gent Management School)

The economic importance of foreign owned firms in Flanders and Brussels has increased since 2004. The share of foreign owned firms increased for all three indicators: number of firms, employment and value added.

Figure 40: Economic importance of foreign owned firms in Flanders and Brussels, 2004



Source: FORMNE 2004 database, VIO database (Vlerick Leuven Gent Management School)

2.2.1. Industry mix of foreign firms versus local firms

Foreign firms in Flanders and Brussels generated in 2005 a total of € 57,4 billion in value added. This corresponds to half of the total value added in 2005. Of these € 57,4 billion, services firms added € 28,2 billion of value in 2005 and manufacturing firms €25,4 billion. Others (i.e. construction, energy, mining firms) accounted for € 3,8 billion in value added. In the following paragraphs the analysis will focus on services and manufacturing, the category 'others' will not be included.

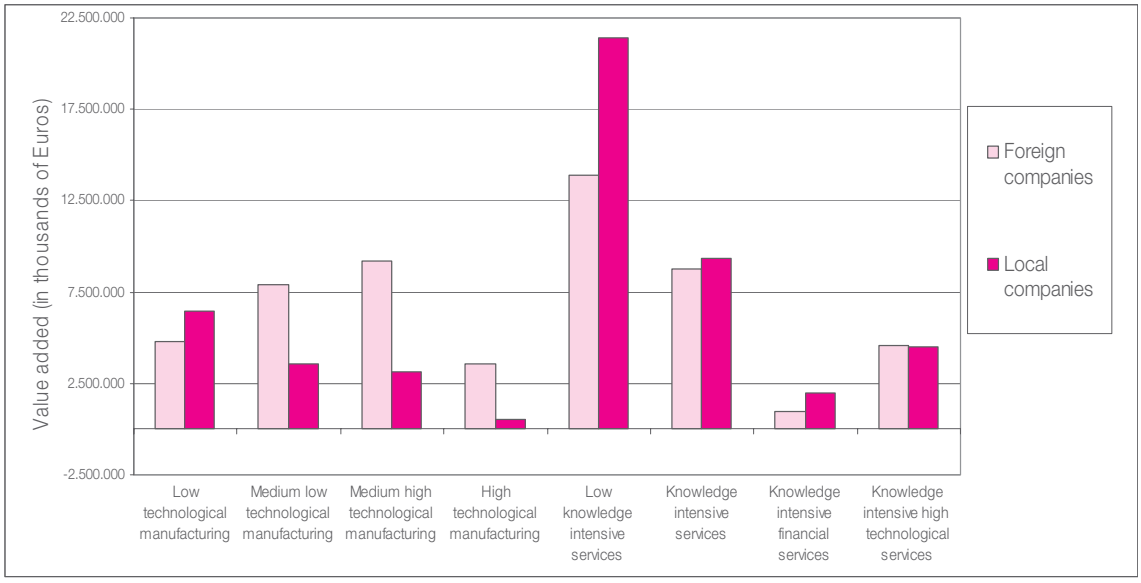
Within services, the low knowledge intensive services add by far most value. In 2005, they added no less than € 13,9 billion or nearly 26% of all value added. There are three subcategories which are mainly responsible for this high value added: Wholesale in machinery, devices and accessory, Wholesale of household goods and Wholesale of non-agricultural intermediate products, waste and scrap.

The second largest sector in terms of value added is the knowledge intensive services industry (€ 8,8 billion). Mainly legal, accounting, book-keeping and auditing activities/ tax consultancy/ market research and public opinion polling and labor recruitment and provision of personnel are the most important subsectors. The fact that labor recruitment and provision of personnel adds a lot of value comes not as a surprise as Randstad, Adecco, Vedior and Manpower are among the 10 largest foreign owned firms in terms of employment.
In manufacturing, the medium high tech industry is the largest value adding sector in Flanders and Brussels by foreign owned firms (€ 9,2 billion). Manufacturing of basic chemicals is the most import subsector.

Comparing the sectoral distribution of value added of foreign versus local firms, both groups add most value in low knowledge intensive services industries. This is in line with the high number of firms active in these industries. However, foreign low knowledge intensive services firms seem to be less productive compared to foreign owned firms in other sectors. Nearly 47% of all foreign firms are active in LKI services, accounting for only 26% of total value added generated by all foreign owned firms. Within the group of local firms, 47% of the firms are active in LKI services and they account for 42% of total value added.

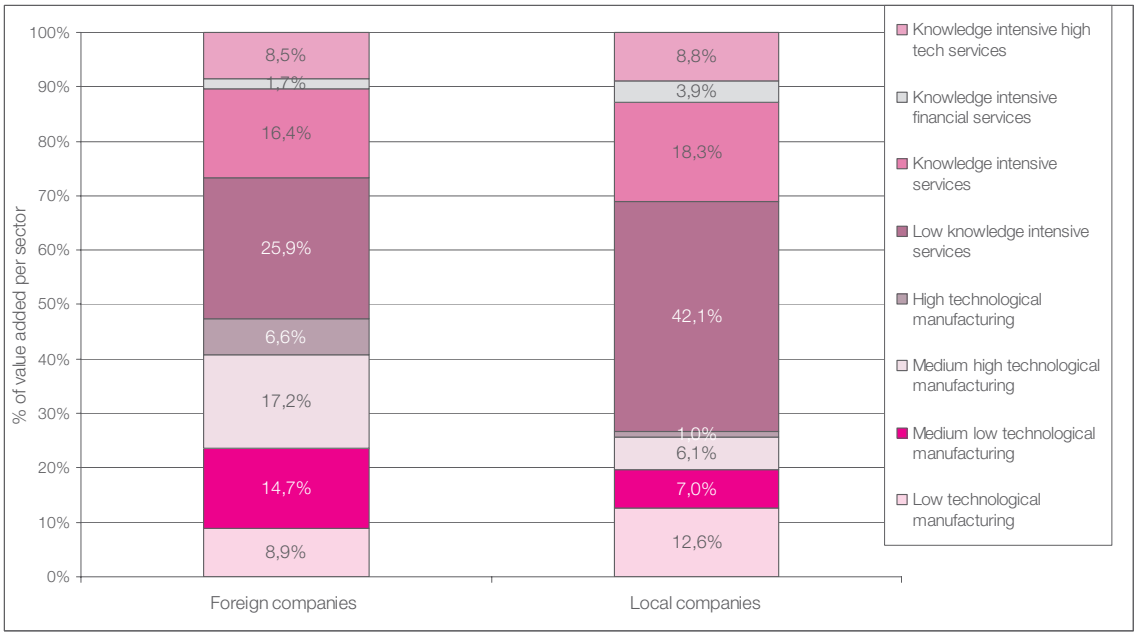
In manufacturing industries the opposite is true. Foreign owned firms generate relatively more value added in manufacturing industries than local firms do. Only 18% of all foreign firms are active in manufacturing industries, but they account for 50% of the value added created by foreign owned firms. Within the group of local firms, 14% of the firms account for 27% of the value added.

Figure 41: Comparison of value added by firms in Flanders and Brussels (2005)



Source: VIO Database (Vlerick Leuven Gent Management School)

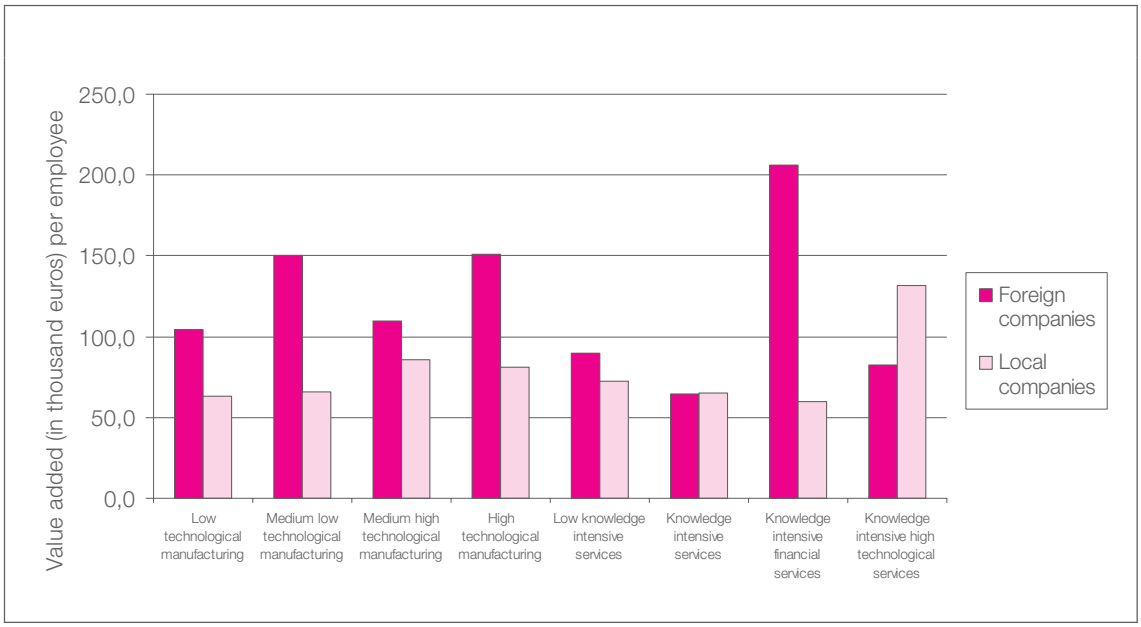
Figure 42: Breakdown of value added by sector and origin of the firm



Source: VIO Database (Vlerick Leuven Gent Management School)

Comparing the labor productivity of foreign firms versus local firms, in most industries foreign firms are more productive than local. Only in knowledge intensive market services and knowledge intensive high tech services, the value added per employee is higher in local firms.

Figure 43: Value added per employee, foreign versus local firms

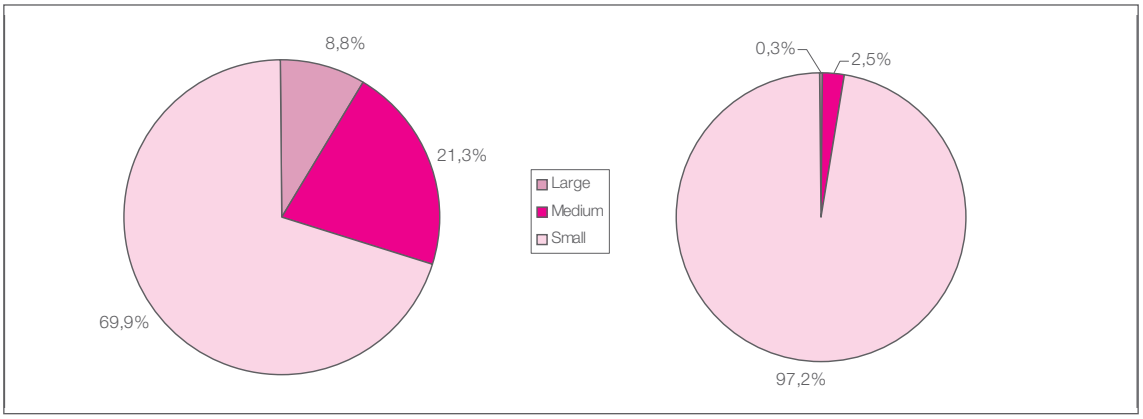


Source: FORMNE 2007 database, VIO Database (Vlerick Leuven Gent Management School)

2.2.2. Firm size

Firms in Flanders and Brussels that are foreign owned, create significantly more employment than local firms. Of all foreign owned firms in Flanders and Brussels almost 9% are large firms[7] in terms of employment, whereas in the group of local firms the share of large firms is only marginal (0,3%). Within the group of local firms small firms have an overwhelming dominance with a share of more than 97% in the total number of firms.

Figure 44: Firm size (in terms of employment), foreign owned versus local firms

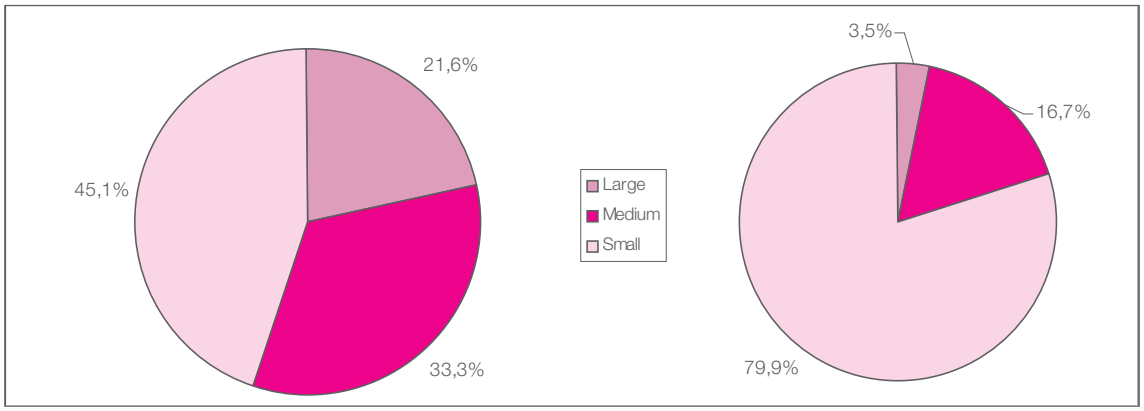


Source: FORMNE 2007 database, VIO database (Vlerick Leuven Gent Management School)

[7] small firm = a firm with less than 50 employees in 2005; medium firm = a firm with between 50 and 250 employees; large firm = a firm with more than 250 employees

Also in terms of revenues, foreign firms are on average much larger than local firms. Of all 5.318 foreign firms in Flanders and Brussels, 45% are small firms in terms of revenue, one third of the firms are medium sized and almost 22% is large[8]. In the group of local firms, 80% of firms are small firms, 16,5% are medium and merely 3,5% are large in terms of revenue.

Figure 45: Firm size (in terms of revenues), foreign owned versus local firms

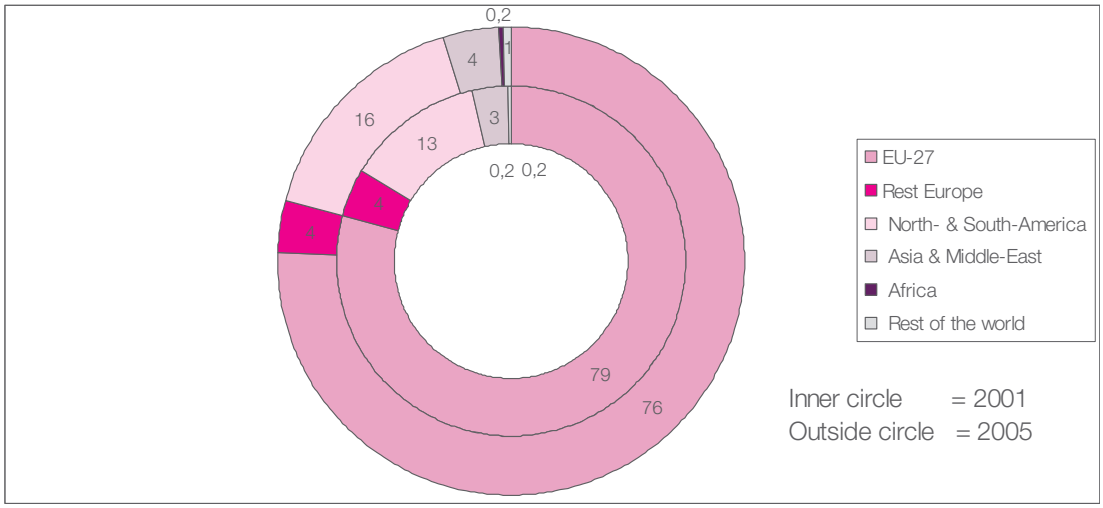


Source: FORMNE 2007 database, VIO database (Vlerick Leuven Gent Management School)

2.2.3. Country of origin

In spite of the fact that the absolute dominance of Europe as investing region in Flanders and Brussels has slightly diminished over the period 2004-2007, by far the largest number of foreign firms in Flanders and Brussels in 2007 still belongs to a European parent firm (4.194 or 79%). Within this group, the majority originates from a EU member state (EU-27) (95%).

Figure 46: Country of origin, 2007 versus 2004



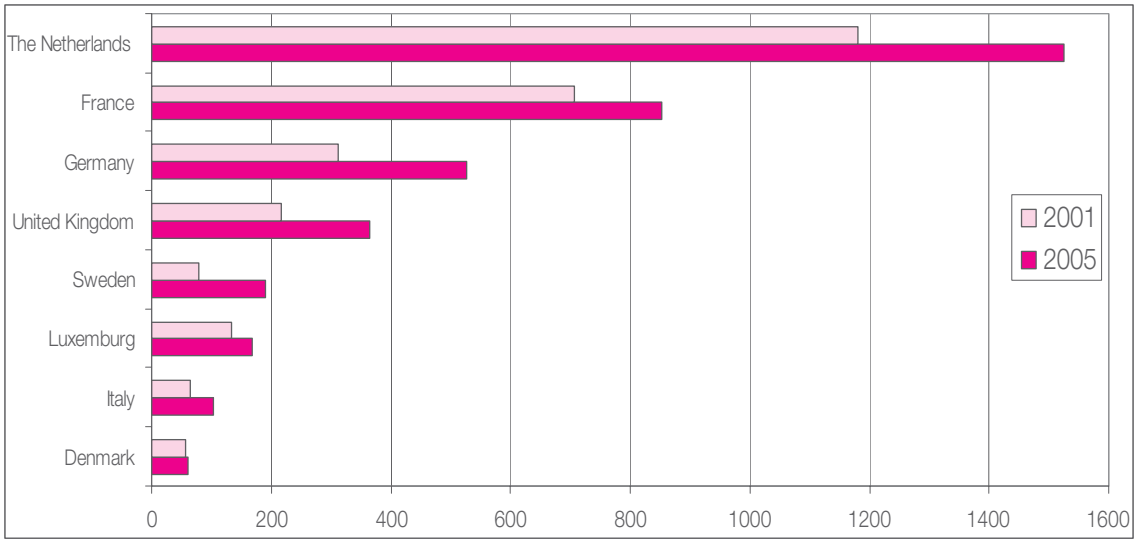
Source: FORMNE 2004 and 2007 database (Vlerick Leuven Gent Management School)

[8] small firm = a firm with revenues less than €7 million in 2005; medium firm = a firm with revenues between €7 million and €40 million; large firm = a firm with revenues more than €40 million

Especially firms from neighboring countries represent a large share of the foreign owned firms in Flanders and Brussels. About 55% of all foreign firms originate from three neighboring countries: The Netherlands (29%), France (16%) and Germany (10%).

Although between 2004 and 2007 the absolute number of firms originating from those countries still rose strongly, their combined relative share did decrease over time (from 61% in 2004). In 2007, 1.526 foreign firms originated from the Netherlands. Compared to 2004, their share in the total number of foreign firms decreased from almost 33% to 29% (1.526 in 2007 versus 1.180 in 2004). Furthermore, in 2007 852 French and 526 German firms were present in Flanders and Brussels. Also the French share in the total number of foreign firms decreased over time (from 19,5% to 16,2%) whereas the German share increased (from 8,6% to 9,7%).

Figure 47: Major European investing countries in Flanders and Brussels (number of firms)

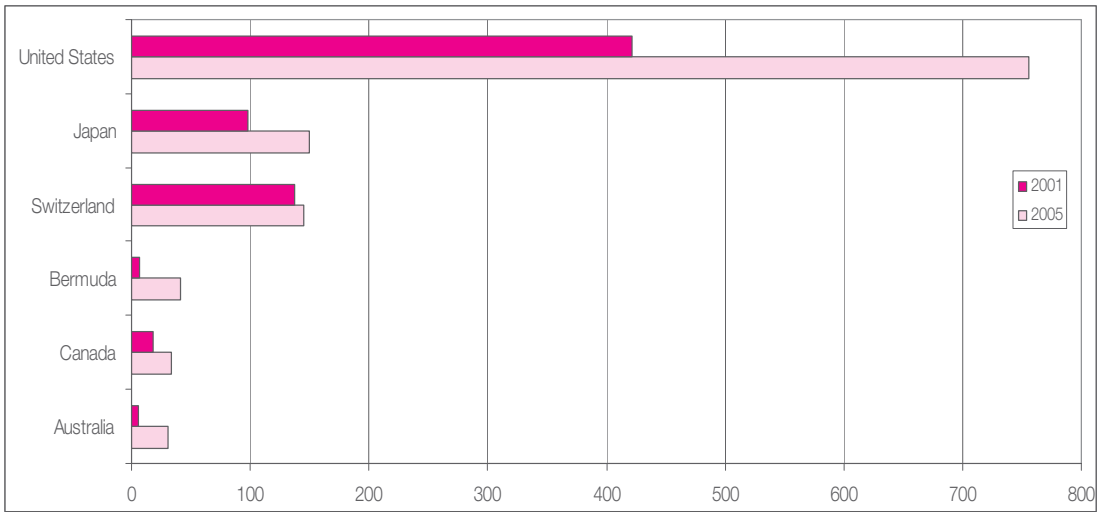


Source: FORMNE 2004 and 2007 database (Vlerick Leuven Gent Management School)

The most important investing region in Flanders and Brussels from outside Europe is North- and South-America. Between 2004 and 2007 the share of firms originating from this region even increased from 13% to 16%. Only 4% of all foreign firms in Flanders and Brussels originate from Asia and the Middle-East in 2007. Despite the growth between 2004 and 2007, their share remains very limited.

Focusing on the top-5 countries from outside the EU-27, the United States remains by far the most important investing country in Flanders and Brussels. In 2007, 756 firms were owned by an US parent. Compared to 2004, this is an increase of 80%, resulting in a 14% share in the total number of foreign owned firms in 2007 versus a share of almost 12% in 2004. With 150 firms in Flanders and Brussels, Japan is the second most important non-European investor in Flanders and Brussels, closely followed by Switzerland from which 145 firms originate in 2007. In total, the top-5 countries represented about 22% of all foreign firms in 2007 (1.157 out of 5.318).

Figure 48: Major non-European investing countries in Flanders and Brussels (number of firms)

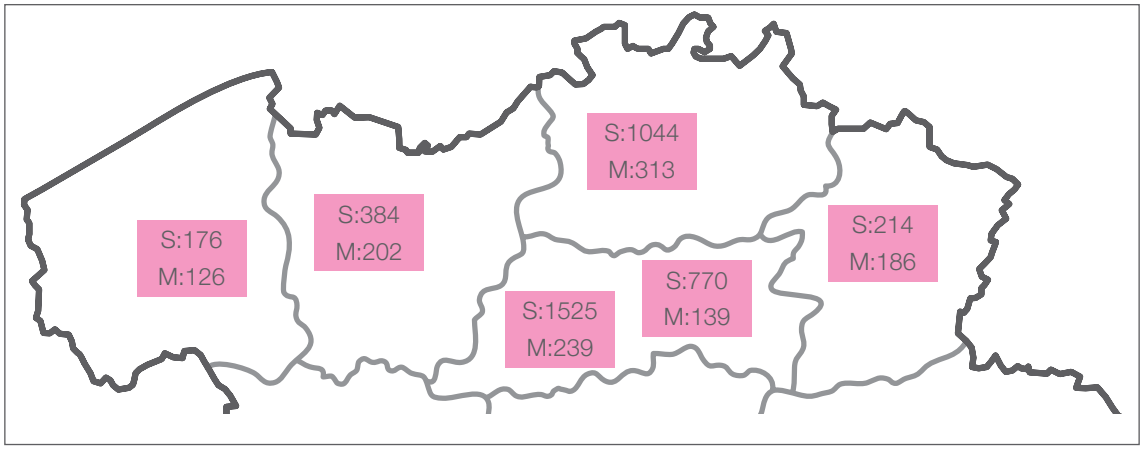


Source: FORMNE 2004 and 2007 database (Vlerick Leuven Gent Management School)

2.2.4. Location

Foreign owned firms are strongly concentrated around the axis Brussels-Antwerp. More than three quarter of all foreign owned firms in Flanders and Brussels is located in Brussels, Flemish Brabant or Antwerp.

Figure 49: Geographical location of foreign owned firms (number of services and manufacturing firms)



Source: FORMNE 2007 database (Vlerick Leuven Gent Management School)

Services and manufacturing firms do show a different location pattern. Whereas for Brussels and Flemish Brabant the share of foreign owned firms is significantly higher in services industries than in manufacturing, the opposite is true for the provinces of Limburg and West Flanders and Brussels.

It is clear that the determining location factors are very different for services versus manufacturing firms.

Table 2: Geographical distribution of foreign owned firms, services versus manufacturing firms

Provincie	Manufacturing	Services	Total
Brussels	19,8%	37,1%	33,2%
Antwerp	26,0%	25,4%	25,5%
Flemish Brabant	11,5%	18,7%	17,1%
East Flanders	16,8%	9,3%	11,0%
Limburg	15,4%	5,2%	7,5%
West Flanders	10,5%	4,3%	5,7%

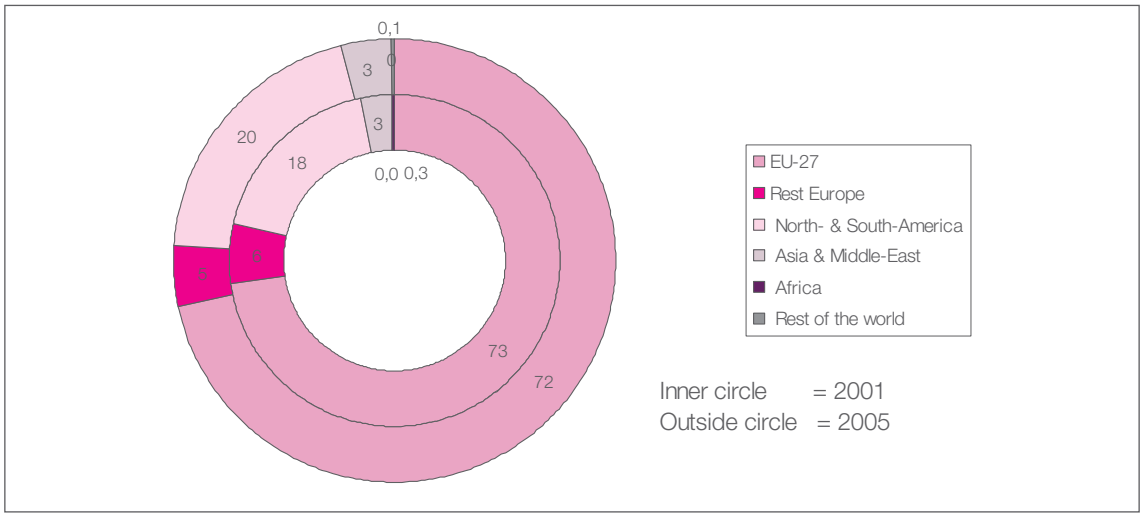
Source: FORMNE 2007 database (Vlerick Leuven Gent Management School)

2.2.5. Employment

As Figure 39 illustrates, foreign firms play a major role in the economic development of Flanders and Brussels. Although limited in number, they accounted for 41% of total employment in 2005. Compared to 2001, their importance in terms of employment creation increased by 3%. In 2005, 589.840 employees worked in a foreign owned firm. In 2001, this number equaled 524.193 employees.

In line with the dominance of European firms in the total number of foreign firms, 77% of all employment by foreign owned firms comes from European firms (72% EU-27 and 5% rest of Europe). This share is slightly lower than the share in total number of firms (80%), indicating that European firms – more specifically EU-27 firms – are on average smaller in size (in terms of employment) than non-European firms, especially US firms.

Figure 50: Origin of employment



Source: FORMNE 2004 and 2007 database (Vlerick Leuven Gent Management School)

Table 3: Number of employees of foreign firms by region of origin

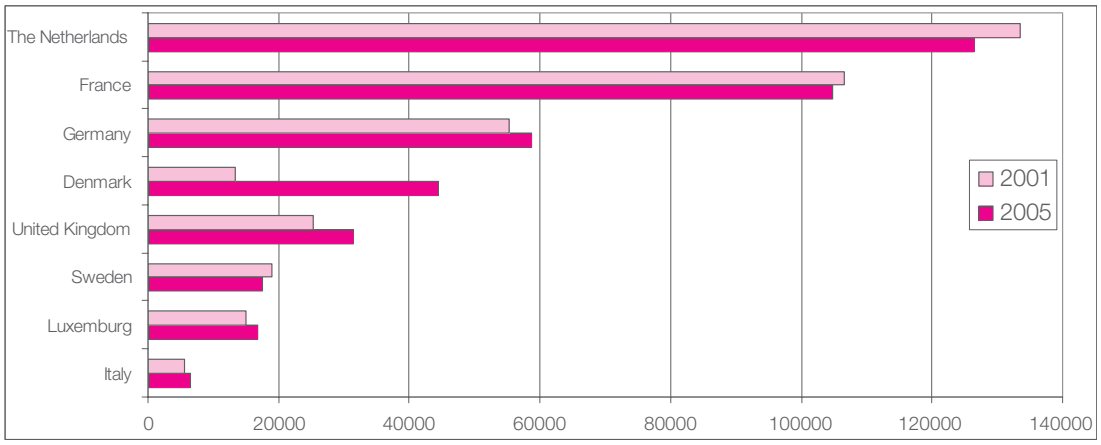
	2005	% change '01-'05
EU-27	420.285	10,1%
Rest Europe	26.771	-12,9%
North- & South-America	117.357	24,8%
Asia & Middle-East	19.735	22,4%
Africa	865	-38,1%
Rest of the world	1.571	1 425,2%
Total	586.584	11,9%

Source: FORMNE 2004 and 2007 database (Vlerick Leuven Gent Management School)

Focusing on the EU-27, the Netherlands, France and Germany are the most important foreign investors for employment creation. Despite a negative evolution in the employment of Dutch and French firms between 2001 and 2005, in 2005 those three countries still accounted for 49% of total foreign employment.

The other important employers are Denmark (44.381 employees in 2005), the United Kingdom (31.498 employees in 2005), Sweden (17.447 employees in 2005), Luxemburg (16.710 employees in 2005) and Italy (6.413 employees in 2005). The strong increase in Danish employment relates to the change in ownership of De Post in 2006, when Post Danmark took a 49,99% stake in the firm. Since then, De Post is the largest foreign employer in Flanders and Brussels (see also Table 4: Top 10 foreign owned employers in Flanders and Brussels).

Figure 51: Major EU-27 investing countries in Flanders and Brussels in terms of job creation

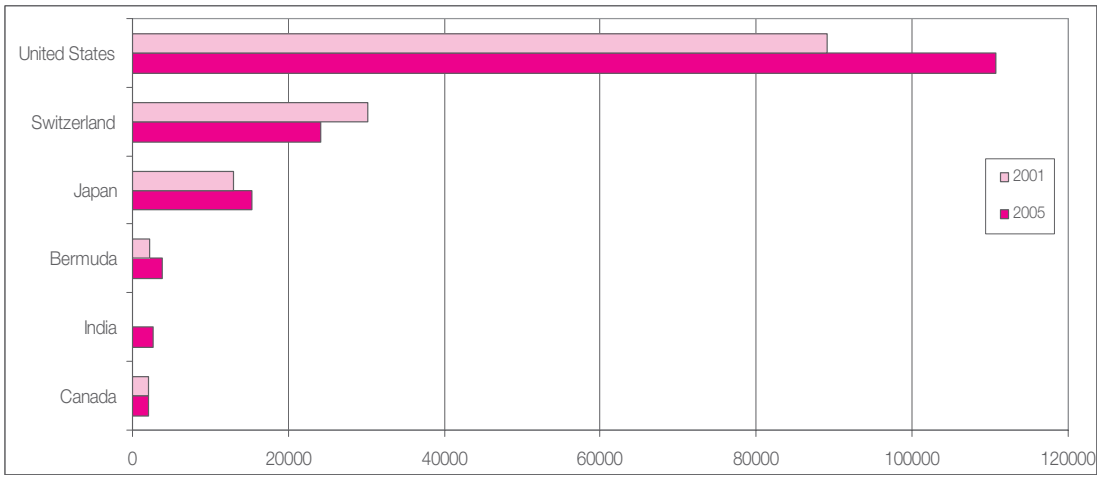


Source: FORMNE 2004 and 2007 database (Vlerick Leuven Gent Management School)

In the group of non-EU firms, the majority of employment is created by US firms. With 110.673 employees, American firms account for 70% of non-European employment in Flanders and Brussels. Since 2001, employment in American firms increased by more than 24%. Within Swiss firms on

the other hand – the second most important non-EU group in terms of employment –employment decreased with almost 20% to 24.198 employees in 2005.

Figure 52: Top employers in Flanders and Brussels originating from non-EU countries

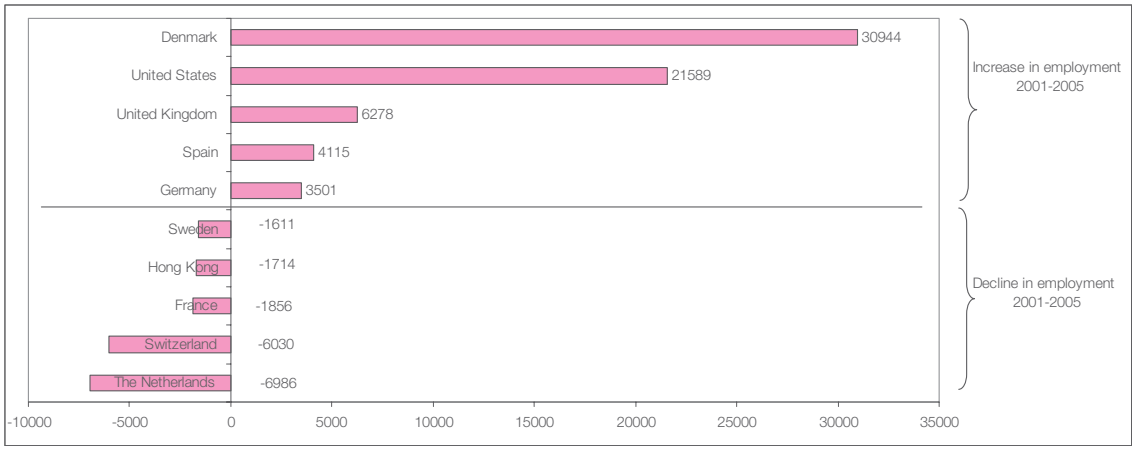


Source: FORMNE 2004 and 2007 database (Vlerick Leuven Gent Management School)

In 2005, Indian owned firms accounted for more than 2.600 employees in Flanders and Brussels, whereas there were no Indian firms with positive employment in 2001. Most Indian employment is concentrated in two firms, Corus Aluminium and Hanson Transmission, both as the result of acquisitions.

Looking at the change in origin of employment in foreign firms over the period 2001-2005, the largest increase in foreign employment was within Danish firms. As mentioned earlier, this comes to the account of the takeover of De Post, a firm with more than 34.000 employees. Excluding this takeover, employment in Danish firms in Flanders and Brussels has declined. The largest declines have been reported by Dutch firms (between 2001 and 2005, about 7.000 jobs).

Figure 53: Changes in employment 2001-2005 by country of origin



Source: FORMNE 2004 and 2007 database (Vlerick Leuven Gent Management School)

At the firm level, the 10 largest foreign owned employers in Flanders and Brussels are De Post, Randstad, Establissements Delhaize, Carrefour Belgium, Adecco Personnel Services, Vedior Interim, Creyf's Interim, Electrabel, Manpower and ISS. As temporary workers are on the payroll of interim offices, half of the largest foreign owned employers are in the interim office business.

Table 4: Top 10 foreign owned employers in Flanders and Brussels

Company name	Country of origin	Employment 2005
De Post	Denmark	34.565
Randstad	The Netherlands	18.022
Etabl. Delhaize	France	12.687
Carrefour Belgium	France	12.468
Adecco Personnel Services	Switzerland	12.029
Vedior Interim	The Netherlands	9.337
Creyf's interim	The Netherlands	9.200
Electrabel	France	8.716
Manpower Belgium	United States	8.684
ISS	Denmark	5.897

Source: FORMNE 2007 database (Vlerick Leuven Gent Management School)

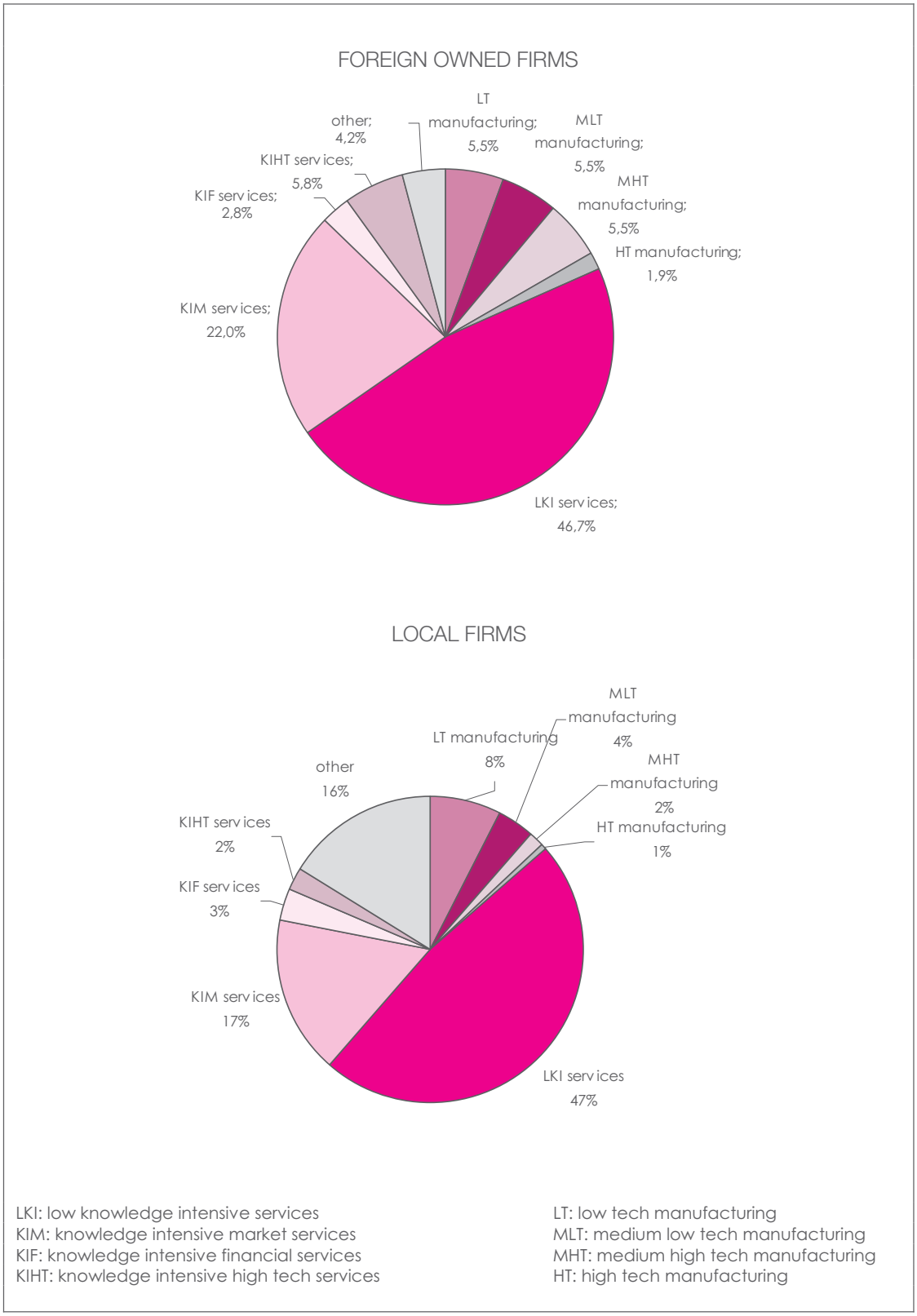
2.3. A sectoral analysis of foreign owned firms in Flanders and Brussels

Foreign owned firms in Flanders and Brussels are largely active in services industries (81%). Within services, low knowledge intensive services industries such as retail, restaurants,…[9] attract by far most foreign owned firms (60%), followed by knowledge intensive market services (airline industry, consulting,…). Almost 70% of all foreign owned firms in Flanders and Brussels are active in one of those two categories of industries.

The dominance of the low knowledge intensive services industries and knowledge intensive market services industries in number of active firms also holds for the group of local firms. 64% of all local firms in Flanders and Brussels are active in one of the two categories. One large difference in the sectoral distribution concerns the group of "other" firms. Whereas only 4% of all foreign owned firms is active in this category (i.e. construction, energy, mining), this amounts to 16% in the group of local firms, mainly construction firms.

[9] See Appendix for an overview of the different classifications

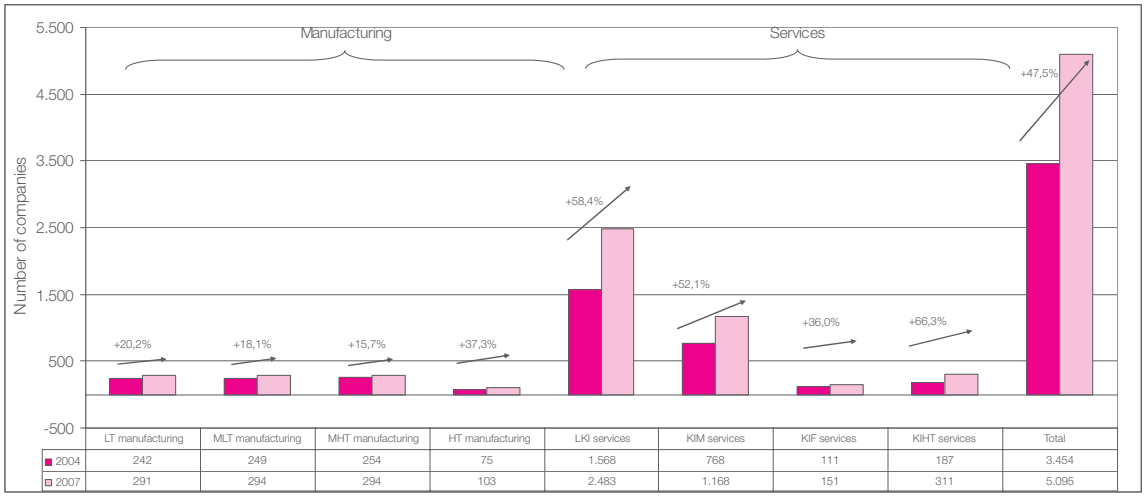
Figure 54: Sectoral distribution of foreign owned firms versus local firms



Source: FORMNE 2007 database (Vlerick Leuven Gent Management School)

In the period 2004-2007, the dominance of both groups even increased. Whereas the total number of foreign firms in Flanders and Brussels grew with 47,5% over the period 2004-2007, the growth rates in low knowledge intensive services and knowledge intensive market services amounted to 58,4% and 52,1%. The highest growth rate, however, is in the knowledge intensive high tech services. Between 2004 and 2007 this group grew with 66,3% in number of firms. Also in manufacturing – although the average growth rate is much lower than in services – the highest growth is seen in high tech manufacturing.

Figure 55: Number of foreign firms in Flanders and Brussels per sector, 2004 versus 2007



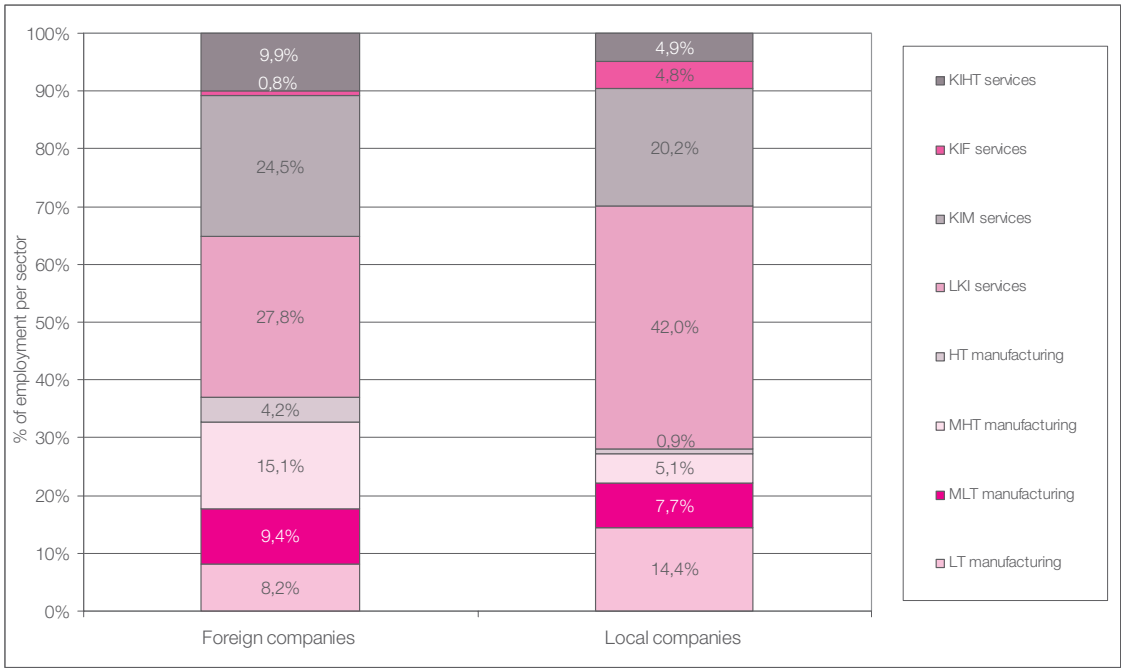
	LT manufacturing	MLT manufacturing	MHT manufacturing	HT manufacturing	LKI services	KIM services	KIF services	KIHT services	Total
2004	242	249	254	75	1.568	768	111	187	3.454
2007	291	294	294	103	2.483	1.168	151	311	5.095

Source: VIO-database (Vlerick Leuven Gent Management School)

In number of firms, manufacturing industries represent only around 18% of all foreign owned firms. However, in terms of employment this group of firms still account for 37% of foreign employment in Flanders and Brussels, indicating that the scale of operation of foreign owned manufacturing firms is much larger than the scale of foreign owned services firms. Especially low knowledge intensive services firms operate on a much smaller scale. Whereas 47% of all foreign owned firms are active in this segment, they only account for 28% of all foreign employment.

Comparing the sectoral distribution of foreign versus local employment, manufacturing industries have a significantly higher share in foreign employment than they have in employment by local firms (37% versus 28%). Especially in high tech and medium high tech manufacturing industries, foreign firms count for relatively more employment than local firms. Whereas high tech and medium high tech industries account for more than 19% of all foreign employment, they only account for 6% of all local employment. Local firms on the other hand have a stronger focus on low tech manufacturing and low knowledge intensive services.

Figure 56: Sectoral distribution of foreign versus local employment



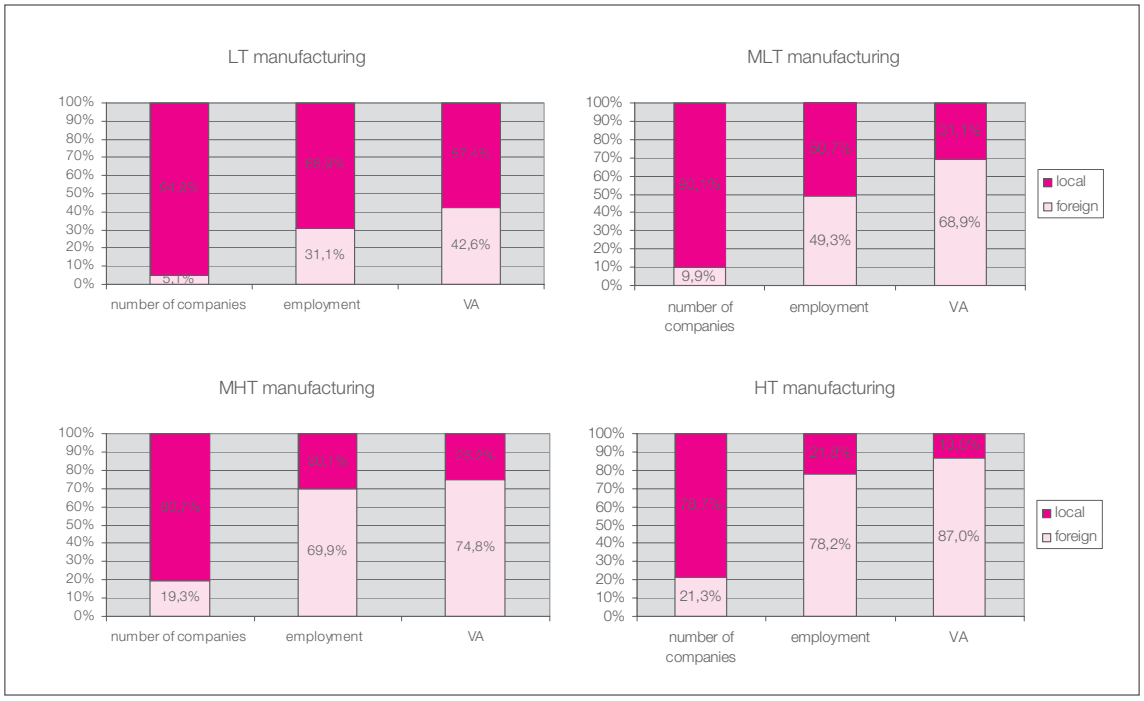
Source: FORMNE 2007 database and VIO database (Vlerick Leuven Gent Management School)

2.3.1. Focus on manufacturing

In 2007, 820 foreign firms are active in manufacturing industries (nace 10 to 45) in Flanders and Brussels, or equal to 9% of all manufacturing firms in Flanders and Brussels. Together they employed around 405.000 people in 2005 or more than half of the employees in manufacturing. They generated € 25,4 billion or 65% of the value added in manufacturing in Flanders and Brussels. This makes the economic contribution of foreign firms in Flanders and Brussels' manufacturing industries very important.

Focusing on the different subsectors in manufacturing, the economic importance of foreign firms is especially high in the medium high and high tech manufacturing industries. Within these subsectors, foreign firms account for about 20% of the total number of firms in these sectors in Flanders and Brussels. And more importantly, they account for 70% - and in high tech even 78% - of employment, and 75% resp. 87% of value added in these sectors.

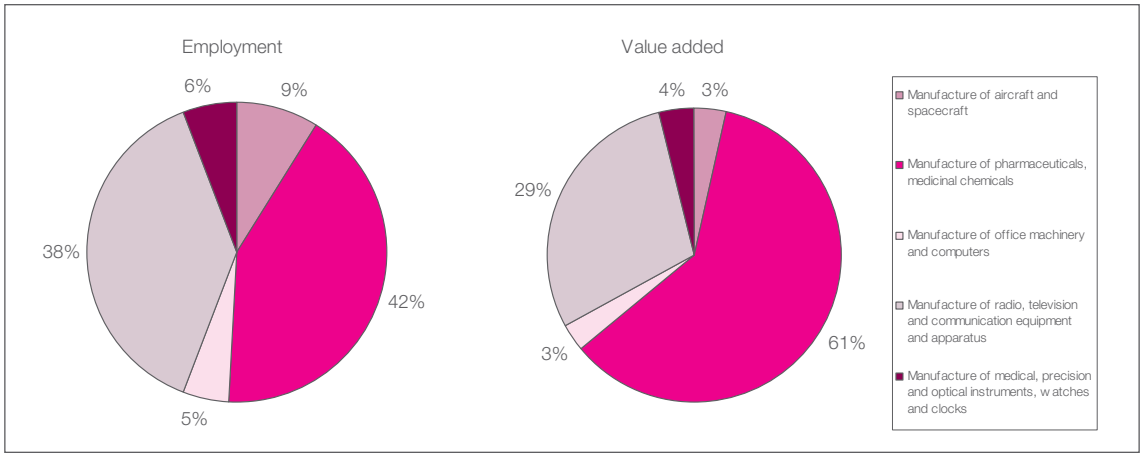
Figure 57: Economic importance of foreign firms in the manufacturing industry, 2007



Source: FORMNE 2007 database, VIO-database (Vlerick Leuven Gent Management School)

Within the high tech manufacturing industry, foreign firms have the highest employment in "manufacture of pharmaceuticals and medicinal chemicals" (42%). They also generate most value added in that sector (61% of value added generated by foreign firms in high tech manufacturing). The second most important sector both in terms of employment and value added is the "manufacture of radio, television and communication equipment and apparatus".

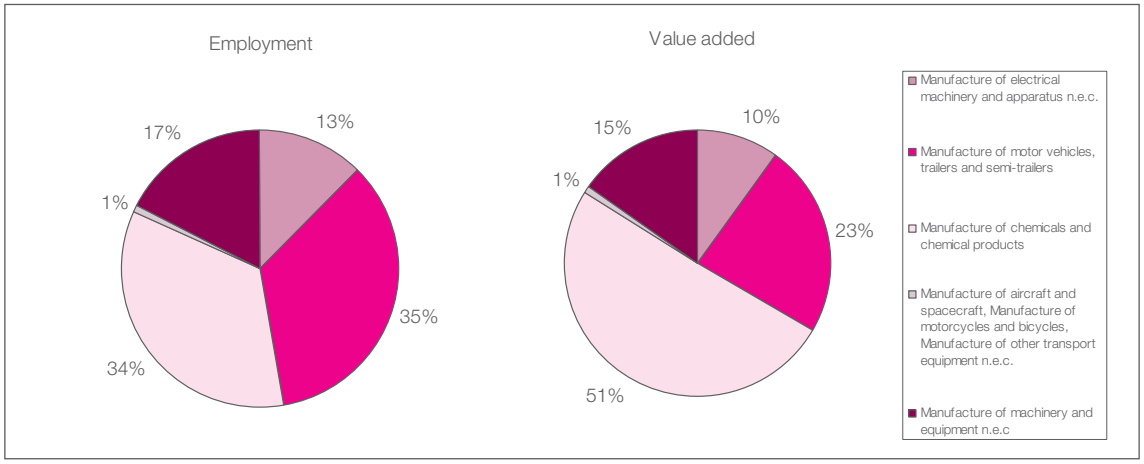
Figure 58: Importance of different sectors for foreign firms within the high tech manufacturing industry



Source: FORMNE 2007 database (Vlerick Leuven Gent Management School)

In the medium high tech manufacturing industry, both “manufacture of motor vehicles, trailers and semi-trailers” and “manufacture of chemicals and chemical products” attract around 35% of foreign employment. In terms of value added however, the last sector is by far the most important sector. More than half of the value added generated by foreign firms in medium high tech manufacturing, comes from the chemical industry. With about the same number of employees, the automotive industry only generates 23% of value added by foreign firms.

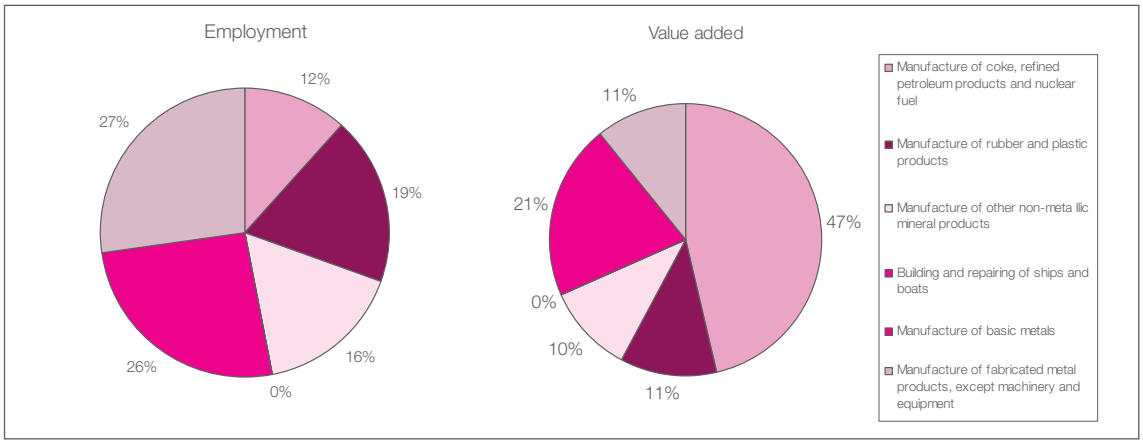
Figure 59: Importance of different sectors for foreign firms within the medium high tech manufacturing industry



Source: FORMNE 2007 database (Vlerick Leuven Gent Management School)

“Manufacture of basic metals” and “manufacture of fabricated metal products, except machinery and equipment” are the most important sectors for foreign firms in the medium low tech manufacturing in terms of employment. However, in terms of value added “manufacture of coke, refined petroleum products and rubber fuel” is the most important sector, generating 47% of all value added by foreign firms in medium low tech manufacturing with only 12% of employment.

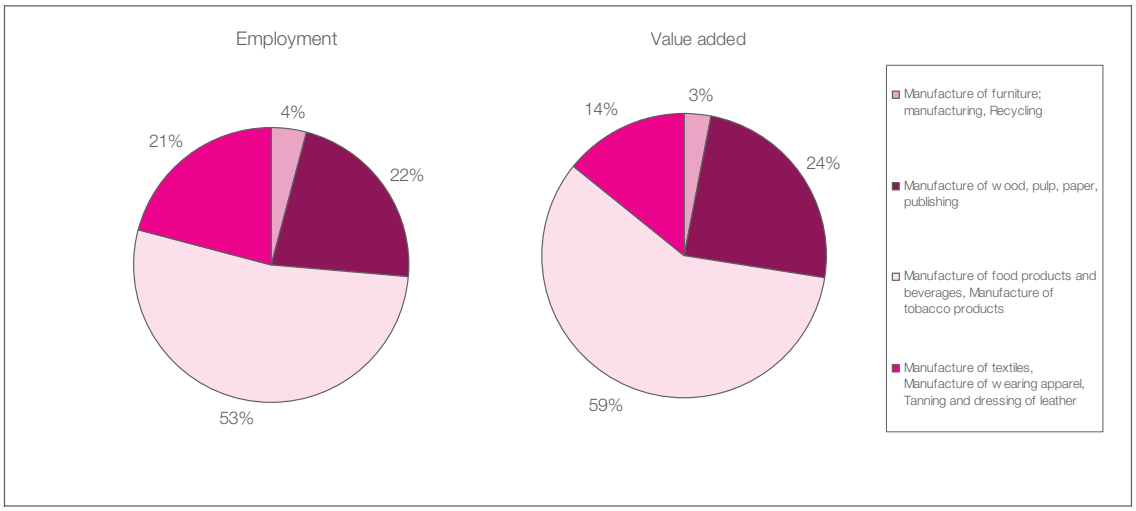
Figure 60: Importance of different sectors for foreign firms within the medium low tech manufacturing industry



Source: FORMNE 2007 database (Vlerick Leuven Gent Management School)

In low tech manufacturing, “manufacture of food products, beverages and tobacco products” accounts for more than half of foreign employment and value added. The second most important sector both in terms of employment and value added is “manufacture of wood, pulp, paper and publishing”.

Figure 61: Importance of different sectors for foreign firms within the low tech manufacturing industry



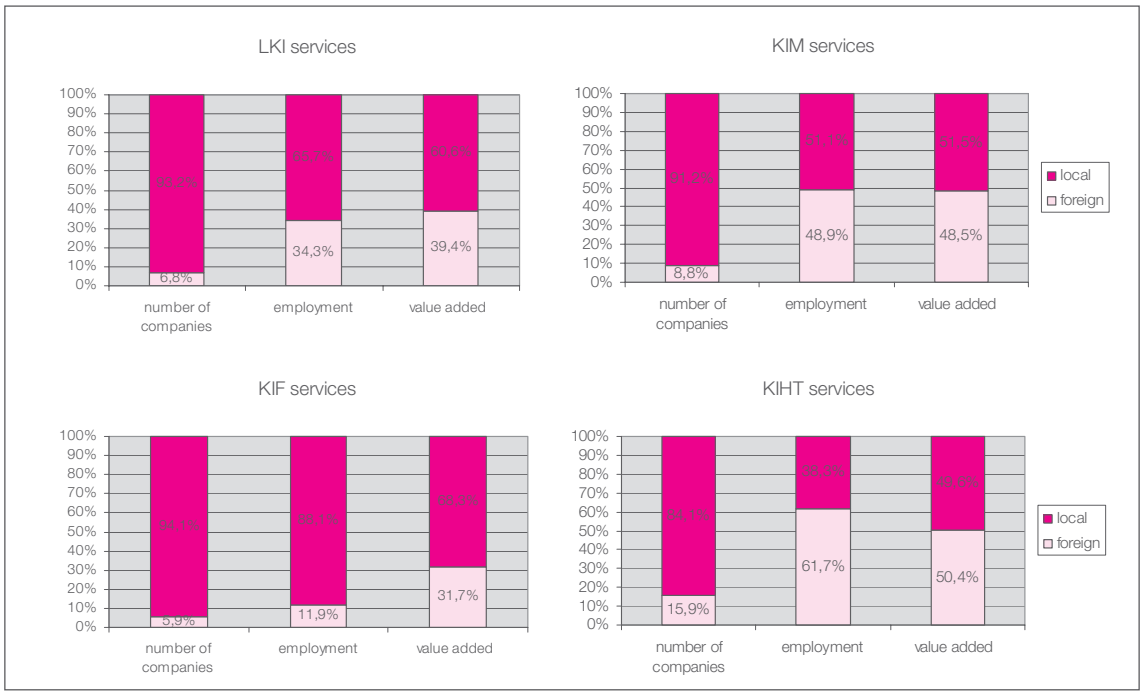
Source: FORMNE 2007 database (Vlerick Leuven Gent Management School)

2.3.2. Focus on services

In 2007, 4.113 foreign owned services firms were active in Flanders and Brussels, equal to 7,5% of all services firms in Flanders and Brussels. Together they employed more than 350.000 people in 2005 or 41% of the total employment in services. They generated an added value of € 28,2 billion or 43% of the value added in services in Flanders and Brussels.

Although the economic position of foreign firms in services is less dominant than in manufacturing, also in services industries foreign firms play an important role in the economy of Flanders and Brussels. Although in number of firms they only have a share of less than 9%, knowledge intensive market services foreign firms account for about half of the employment and value added in the sector. In knowledge intensive high tech services, foreign firms even account for 62% of total employment.

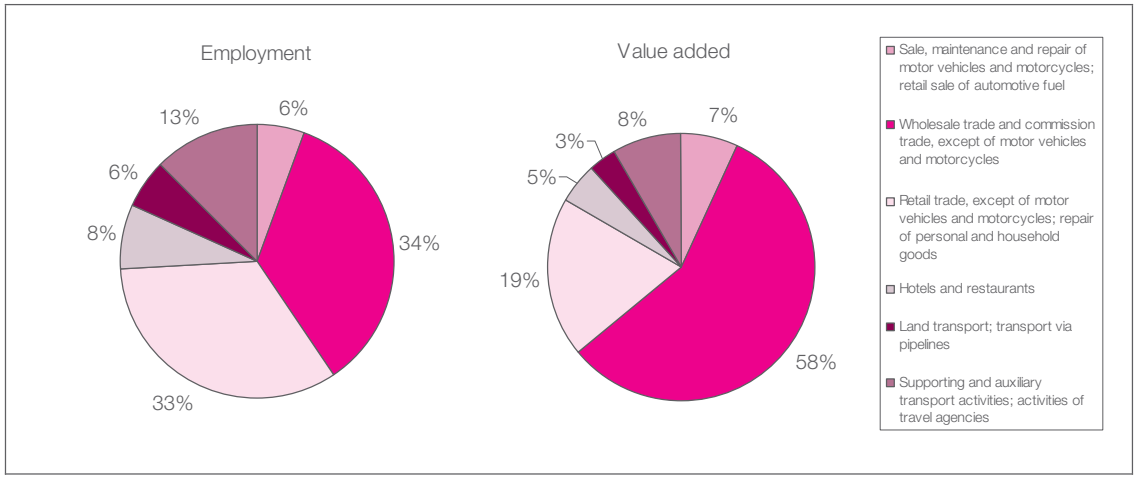
Figure 62: Foreign owned services firms in Flanders and Brussels by type of services, 2007



Source: VIO Database (Vlerick Leuven Gent Management School)

With more than 2.500 foreign firms, 60% of the foreign owned services firms in Flanders and Brussels are active in low knowledge intensive services. In this sector the foreign presence is concentrated in “wholesale trade and commission trade, except of motor vehicles and motor cycles” and “retail trade, except of motor vehicles and motorcycles; repair of personal and household goods”. Those two sectors account for two third of total employment and three quarters of total value added.

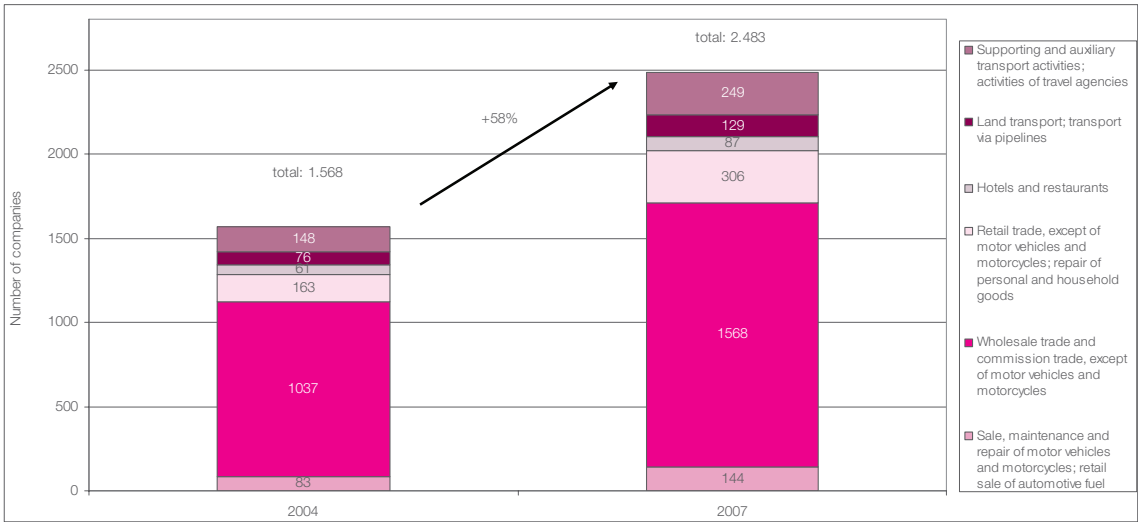
Figure 63: Importance of different sectors for foreign firms within the low knowledge intensive services industry



Source: FORMNE 2007 database (Vlerick Leuven Gent Management School)

The number of foreign firms in Flanders and Brussels active in the low knowledge intensive services grew with 58% over the period 2004-2007. The strongest growth is seen in “retail trade, except of motor vehicles and motorcycles; repair of personal and household goods”. This subsector grew with 88% in number of firms.

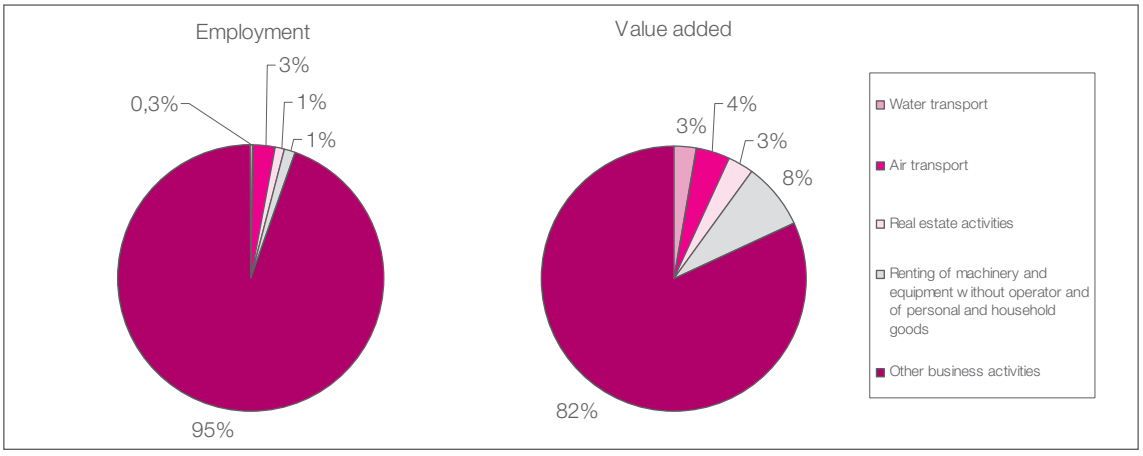
Figure 64: Presence of foreign firms active in Flanders and Brussels within the low-knowledge-intensive services, 2004 versus 2007



Source: FORMNE 2004 and 2007 database (Vlerick Leuven Gent Management School)

Within the knowledge intensive services, most foreign owned firms are active in market services (72%). The foreign presence in this subsector is strongly concentrated in “other business activities”, with 95% of foreign employment and 82% of the value added.

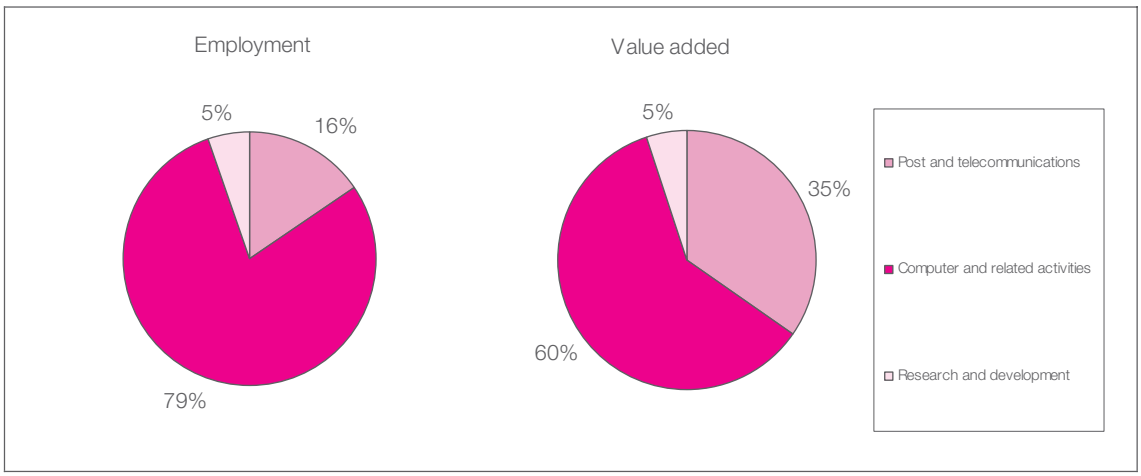
Figure 65: Importance of different sectors of foreign firms within the knowledge intensive market services industry



Source: FORMNE 2007 database (Vlerick Leuven Gent Management School)

In the knowledge intensive high tech services, “computer and related activities” dominates the sector, with 79% of foreign employment and 60% of the value added. “Post and telecommunication” only accounts for 16% of employment, but does generate 35% of the value added.

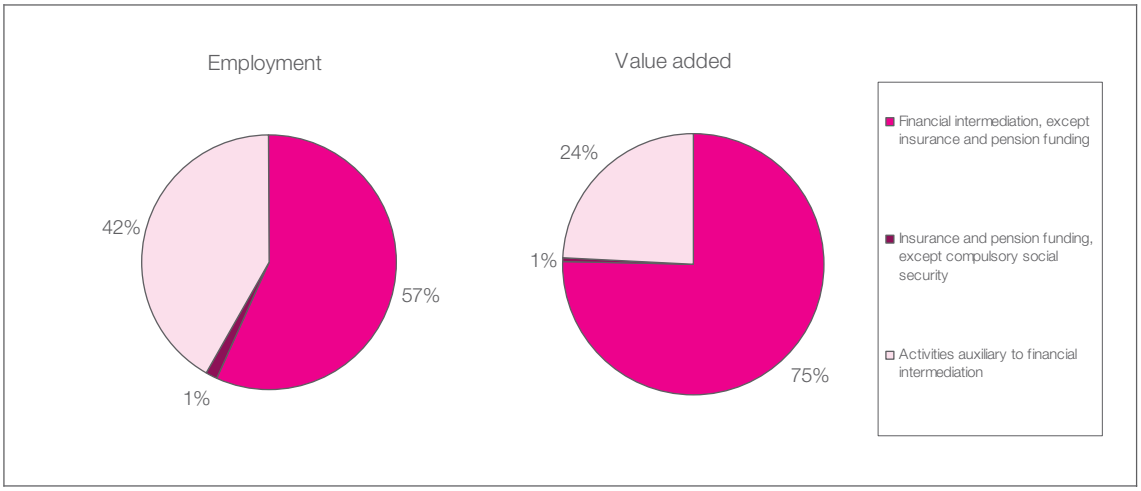
Figure 66: Importance of different sectors for foreign firms within the knowledge intensive high tech services industry



Source: FORMNE 2007 database (Vlerick Leuven Gent Management School)

Within the knowledge intensive financial services the majority of foreign employment and value added is generated in “financial intermediation, except insurance and pension funding”.

Figure 67: Importance of different sectors for foreign firms within the knowledge intensive financial services industry



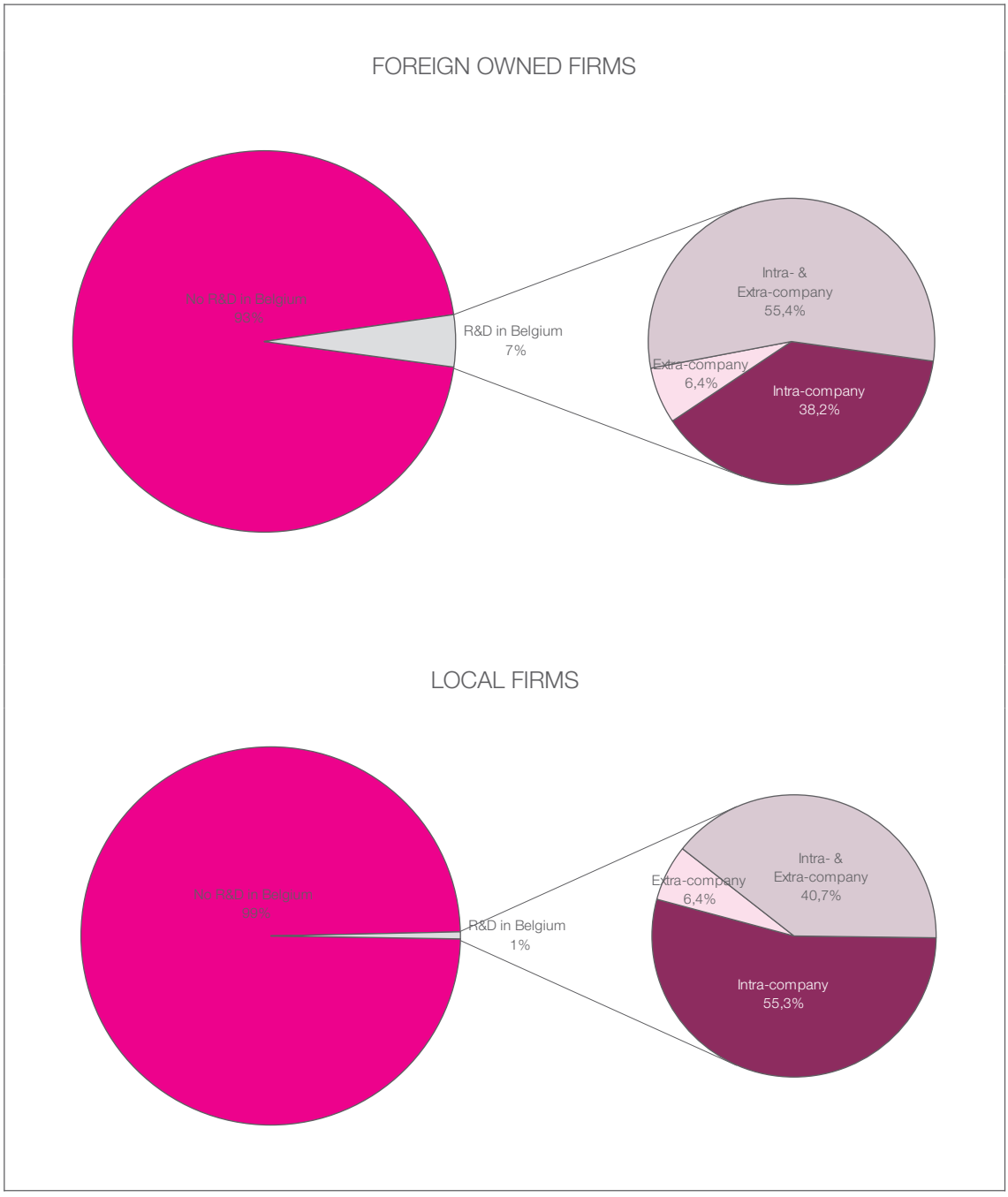
Source: FORMNE 2007 database (Vlerick Leuven Gent Management School)

2.4. Foreign owned R&D activities

7% of all foreign owned firms in Flanders and Brussels are engaged in R&D activities. This is much more than the share of local firms that are engaged in R&D (merely 1%). The result comes as no surprise, as foreign firms in Flanders and Brussels are much more focused on high tech & medium high tech manufacturing and knowledge intensive high tech services (see paragraph 2.3).

Focusing on the sources of R&D, the majority of foreign owned firms (55%) indicate to source R&D output both from within the boundaries of the firm (intra company) as from outside the firm (extra company). Still 38% of all firms active in R&D only rely on internal R&D efforts. Within the group of local firms the majority of R&D active firms even only sources R&D output from within the firm.

Figure 68: R&D activities in foreign owned versus local firms in Flanders and Brussels



Source: FORMNE 2007 database, VIO database (Vlerick Leuven Gent Management School), DWTC

In 2006 worldwide FDI outflows reached $1.216 billion, only $29 billion less than the record level of 2000. Worldwide outflows rose by a stunning 56% between 2005 and 2006. FDI Outflows originate for the largest part from developed countries. Europe has been the main source of FDI outflows since 1980. European investments mainly involve intra-European investments but European firms increasingly invest outside Europe as well. From the developing countries, especially countries from Asia and Oceania have increased their relative importance as origin region of FDI. As to the sectoral distribution, firms active in services industries accounted for about two third of total FDI outflows between 2002 and 2004. The share of services in total FDI has been rising since the beginning of the nineties, at the expense of the manufacturing sector.

Developing economies have strengthened their position in attracting foreign direct investments over the last decade. The increase in foreign direct investment in manufacturing over the period 1989-2004 was largely concentrated in low tech manufacturing industries. High tech services still accounted for most inward FDI flows within services. Firms in the European Union not only have the largest outstanding FDI stock; most of the worldwide FDI stock is also located in the European Union.

The growth of global FDI flows over the last two decades has been largely driven by a significant increase in cross-border M&As; both in value and number of deals. Europe is the region with most M&A activities in the world, both in terms of sales and purchases. Asia faced the largest increase in M&As. Focusing worldwide on the last two years, a new boom in M&As can be observed. Private equity funds - and hedge funds - are relatively new, but strongly growing sources of FDI. Although greenfield FDI projects account for a much smaller share in the total value of FDI, the number of greenfield projects surpasses greatly the number of M&A projects. Greenfield investments are typically made in the manufacturing industries. Greenfield investment projects originating from BRIC countries have been growing strongly over the past five years. Nevertheless, they still represent a marginal share of the worldwide total.

As firms are facing increasing competition worldwide, they will continue to look for low-cost locations. Therefore, greenfield investments and M&As are especially expected to rise in the developing world. Factors that are expected to suppress FDI growth are: high oil prices, rising interest rates, increased inflationary pressure, exchange rate fluctuations and geopolitical tensions and uncertainty in some parts of the world. In a wide range of surveys, most respondents are convinced that FDI flows will increase in the next years. Asia and Eastern Europe have most positive FDI prospects. Whereas production facilities have been increasingly off shored to developing countries, the bulk of FDI in R&D facilities remains in the developed world. However, FDI prospects show that this might change in the near future.

Over the period 2002-2006 FDI inflows and outflows in Belgium have been multiplied by a factor close to five. In line with the global boom in M&A activities, also in Belgium the number of deals – both sales and purchases – has been rising strongly from 2004 onwards. The number of greenfield investments by foreign firms in Belgium had been rising between 2002 and 2005, but dropped again after 2005.

In 2007, 5.318 firms in Flanders and Brussels were foreign owned. This is about 7% of all active manufacturing and services firms. Together they employed 589.840 people or 41% of total employment of the constructed database. With a total added value of € 57,4 billion they accounted for half of the total value added in the region. About 820 foreign firms were active in manufacturing industries (nace 10 to 45) in Flanders and Brussels, equal to 9% of all manufacturing firms in Flanders and Brussels in 2007. Together they employed around 405.000 people in 2005 or more than half of the employees in manufacturing. They generated € 25,4 billion or 65% of the value added in manufacturing in Flanders and Brussels. Focusing on the different subsectors in manufacturing, the economic importance of foreign firms is especially high in the medium high and high tech manufacturing industries.

A total of 4.113 foreign owned services firms were active in Flanders and Brussels, equal to 7,5% of all services firms in the region in 2007. Together they employed more than 350.000 people in 2005 or 41% of the total employment in services. They generated an added value of € 28,2 billion or 43% of the value added in services in Flanders. Low knowledge intensive services industries (such as retailing, restaurants, etc.) attract by far most foreign owned firms (60%) in services, followed by knowledge intensive market services (airline industry, consulting, etc.).

The economic importance of foreign owned firms in Flanders and Brussels has increased since 2004 for all three indicators: number of firms, employment and value added. In most industries foreign firms are more productive than local. Firms that are foreign owned, create significantly more employment than local firms. Also in terms of revenues, foreign firms are on average much larger than local firms.

In spite of the fact that the dominance of Europe as investing region in Flanders and Brussels has been diminishing over the period 2004-2007, by far the largest number of foreign firms in 2007 still belong to a European parent firm. Especially firms from neighbouring countries represent a large share of the foreign owned firms in Flanders and Brussels. More than three quarter of all foreign owned firms in the region are located in Brussels, Flemish Brabant or Antwerp. Services and manufacturing firms do show a different location pattern. For Brussels and Flemish Brabant the share of foreign owned firms is significantly higher in services industries than in manufacturing. The opposite is true for the provinces of Limburg and West Flanders. Clearly, the determining location factors are very different for services versus manufacturing firms. About 7% of all foreign owned firms in Flanders and Brussels are engaged in R&D activities. This is a much higher share than the counterpart share of local firms engaged in R&D (merely 1%).

I. OECD and Eurostat sector classification

A. MANUFACTURING

	ISIC Rev. 3*
High-technology industries	
Aircraft and spacecraft	353
Pharmaceuticals	2423
Office, accounting and computing machinery	30
Radio, TV and communications equipment	32
Medical, precision and optical instruments	33
Medium-high-technology industries	
Electrical machinery and apparatus, n.e.c.	31
Motor vehicles, trailers and semi-trailers	34
Chemicals excluding pharmaceuticals	24 excl. 2423
Railroad equipment and transport equipment, n.e.c.	352 + 359
Machinery and equipment, n.e.c.	29
Medium-low-technology industries	
Building and repairing of ships and boats	351
Rubber and plastics products	25
Coke, refined petroleum products and nuclear fuel	23
Other non-metallic mineral products	26
Basic metals and fabricated metal products	27-28
Low-technology industries	
Manufacturing, n.e.c.; Recycling	36-37
Wood, pulp, paper, paper products, printing and publishing	20-22
Food products, beverages and tobacco	15-16
Textiles, textile products, leather and footwear	17-19

** UN Classification of economic activities*

Source: OECD Science, Technology and Industry Scoreboard 2003 - Towards a knowledge-based economy, Annex 1

B. SERVICES

	NACE Rev. 1.1**
Knowledge-intensive high-tech services	
Post and Telecommunications	64
Computer and related activities	72
Research and development	73
Knowledge-intensive market services (excl. financial intermediation and high-tech services)	
Water transport	61
Air transport	62
Real estate activities	70
Renting of machinery and equipment without operator, and of personal and household goods	71
Other business activities	74
Knowledge-intensive financial services	
Financial intermediation, except insurance and pension funding	65
Insurance and pension funding, except compulsory social securi	66
Activities auxiliary to financial intermediation	67
Other knowledge-intensive services	
Education	80
Health and social work	85
Recreational, cultural and sporting activities	92
Less knowledge-intensive market services	
Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel	50
Wholesale trade and commission trade, except of motor vehicles and motorcycles	51
Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods	52
Hotels and restaurants	55
Land transport; transport via pipelines	60
Supporting and auxiliary transport activities; activities of travel agencies	63
Other less knowledge-intensive services	
Public administraton and defence; compulsory social security	75
Sewage and refuse disposal, sanitation and similar activities	90
Activities of membership organization n.e.c.	91
Other service activities	93
Private households with employed persons	95
Extra-territorial organizations and bodies	99

** Classification of economic activities in the European Community
Source: Eurostat

II. Selected FDI data

All figures are expressed in millions of US dollars. They are retrieved from the Unctad World Investment report 2007.

A. INWARD FDI FLOWS

Region/economy	1970	1980	1990	2000	2005	2006
World	13 418	55 262	201 594	1 411 366	945 795	1 305 852
Developed economies	9 564	47 575	165 627	1 146 238	590 311	857 499
Europe	5 226	21 578	97 044	721 931	494 980	566 389
European Union	5 158	21 494	90 499	695 277	486 409	530 976
Austria	113	239	653	8 840	9 045	248
Belgium and Luxembourg	314	1 545	8 047	88 739	-	-
Belgium	-	-	-	-	33 918	71 997
Cyprus	20	85	127	855	1 214	1 492
Czech Republic	..	..	72	4 986	11 658	5 957
Denmark	104	52	1 132	33 012	13 103	7 032
Estonia	-	-	-	387	2 879	1 674
Finland	18	28	786	8 834	4 507	3 706
France	621	3 328	9 041	43 250	81 063	81 076
Germany	770	342	2 962	198 277	35 867	42 870
Greece	50	672	1 005	1 108	607	5 363
Hungary	-	1	623	2 764	7 619	6 098
Ireland	32	286	622	25 779	- 31 132	12 811
Italy	624	577	6 345	13 375	19 971	39 159
Luxembourg	-	-	-	-	7 246	29 309
Latvia	..	..	..	413	724	1 634
Lithuania	-	-	-	379	1 032	1 812
Malta	12	27	46	618	582	1 757
Netherlands	633	2 278	10 515	63 854	41 456	4 371
Poland	..	10	89	9 343	9 602	13 922
Portugal	29	157	2 610	6 635	3 965	7 371
Slovakia	..	..	93	1 925	2 107	4 165
Slovenia	-	-	4	136	496	363
Spain	222	1 493	13 294	39 575	25 020	20 016
Sweden	108	251	1 971	23 427	10 169	27 231
United Kingdom	1 488	10 123	30 461	118 764	193 693	139 543
Other developed Europe	68	84	6 545	26 655	8 571	35 414
Gibraltar	- 0	2	36	138	365	685
Iceland	5	22	22	171	3 082	3 734

Norway	64	60	1 003	7 090	6 391	5 906
Switzerland	..	..	5 484	19 255	- 1 266	25 089
North America	3 083	22 725	56 004	380 802	129 947	244 435
Canada	1 823	5 807	7 582	66 795	28 922	69 041
United States	1 260	16 918	48 422	314 007	101 025	175 394
Other developed countries	1 255	3 271	12 579	43 504	- 34 616	46 675
Australia	893	1 866	8 121	14 019	- 35 160	24 022
Bermuda	73	940	819	12 171	- 8 689	6 803
Israel	49	9	151	5 128	4 792	14 301
Japan	94	278	1 753	8 323	2 775	- 6 506
New Zealand	146	178	1 735	3 863	1 666	8 055
Developing economies	3 854	7 664	35 892	256 088	314 316	379 070
Africa	1 266	400	2 806	9 685	29 648	35 544
Latin America and the Caribbean	1 599	6 483	9 748	97 803	75 541	83 753
Asia	854	663	22 642	148 333	208 744	259 434
China	..	57	3 487	40 715	72 406	69 468
Hong Kong, China	50	710	3 275	61 924	33 618	42 892
India	45	79	237	3 585	6 676	16 881
Oceania	136	118	696	268	383	339
South-East Europe and the CIS (Transition economies)	..	24	75	9 040	41 169	69 283

B. INWARD FDI STOCKS

Region/economy	1980	1990	2000	2005	2006
World	551 221	1 779 198	5 810 189	10 048 015	11 998 838
Developed economies	410 865	1 414 394	4 031 327	7 121 532	8 453 853
Europe	234 964	796 883	2 293 833	4 690 424	5 717 202
European Union	219 872	749 838	2 180 717	4 455 248	5 434 329
Austria	3 163	10 972	30 431	69 366	77 700
Belgium and Luxembourg	7 306	58 388	195 219	-	-
Belgium	-	-	- 23 492	502 402	603 432
Cyprus	- 1 488	- 802	2 910	8 702	10 194
Czech Republic	..	1 363	21 644	60 662	77 460
Denmark	4 193	9 192	73 574	115 489	138 410
Estonia	-	-	2 645	11 290	12 664
Finland	539	5 132	24 272	54 307	64 173
France	26 674	86 845	259 776	627 954	782 825
Germany	36 630	111 231	271 611	459 506	502 376

Greece	4 524	5 681	14 113	29 190	37 009
Hungary	..	569	22 870	61 886	81 760
Ireland	35 444	37 989	127 089	166 230	179 041
Italy	8 892	59 998	121 170	224 079	294 790
Luxembourg	..	..	23 492	43 721	73 030
Latvia	..	..	2 084	4 993	7 532
Lithuania	-	-	2 334	8 211	10 939
Malta	156	465	2 385	3 919	5 675
Netherlands	19 167	68 731	243 733	447 121	451 491
Poland	-	109	34 227	89 694	103 616
Portugal	3 665	10 571	32 043	65 599	85 520
Slovakia	-	282	4 746	19 775	30 327
Slovenia	-	665	2 893	7 077	7 452
Spain	5 141	65 916	156 348	371 451	443 275
Sweden	2 852	12 636	93 970	171 266	218 373
United Kingdom	63 014	203 905	438 631	831 357	1 135 265
Other developed Europe	15 092	47 045	113 116	235 177	282 873
Gibraltar	33	263	529	1 244	1 930
Iceland	- 31	146	497	4 709	7 540
Norway	6 584	12 391	25 285	60 235	66 285
Switzerland	8 506	34 245	86 804	168 989	207 119
North America	137 209	507 754	1 469 583	1 944 518	2 174 274
Canada	54 163	112 843	212 716	350 030	385 187
United States	83 046	394 911	1 256 867	1 594 488	1 789 087
Other developed countries	38 692	109 758	267 912	486 589	562 377
Australia	24 776	73 644	111 138	205 888	246 173
Bermuda	5 131	13 849	59 006	91 183	97 985
Israel	3 152	4 476	22 551	36 593	47 469
Japan	3 270	9 850	50 322	100 899	107 633
New Zealand	2 363	7 938	24 894	52 027	63 116
Developing economies	140 356	364 683	1 707 639	2 621 615	3 155 856
Africa	39 836	59 518	153 221	271 476	315 128
Latin America and the Caribbean	35 059	104 599	481 017	816 206	908 575
Asia	64 262	198 053	1 069 188	1 529 047	1 926 949
China	1 074	20 691	193 348	272 094	292 559
Hong Kong, China	21 175	45 073	455 469	523 186	769 029
India	452	1 657	17 517	44 019	50 680
Oceania	1 199	2 513	4 213	4 886	5 204
South-East Europe and the CIS (Transition economies)	0	121	71 222	304 869	389 130

C. OUTWARD FDI FLOWS

Region/economy	1970	1980	1990	2000	2005	2006
World	14 151	53 829	229 598	1 239 190	837 194	1 215 789
Developed economies	14 100	50 676	217 649	1 102 666	706 713	1 022 711
Europe	5 095	24 126	129 857	866 241	691 217	668 698
European Union	5 063	23 872	121 238	811 669	608 799	572 440
Austria	9	101	1 701	5 740	10 023	4 087
Belgium and Luxembourg	174	196	6 314	86 362	-	-
Belgium	-	-	-	-	31 731	63 005
Cyprus	-	-	5	172	482	732
Czech Republic	..	..	..	43	- 19	1 556
Denmark	29	94	1 482	25 082	15 030	8 181
Estonia	-	-	-	63	627	1 105
Finland	52	137	2 702	24 030	4 477	9
France	365	3 137	26 924	177 449	120 971	115 036
Germany	1 070	4 699	24 235	56 557	55 515	79 427
Greece	..	..	11	2 137	1 451	4 167
Hungary	-	-	16	620	2 327	3 016
Ireland	-	-	364	4 629	13 568	22 101
Italy	114	740	7 614	12 316	41 822	42 035
Luxembourg	-	-	-	-	9 521	2 248
Latvia	..	..	..	12	127	146
Lithuania	-	-	-	4	343	276
Malta	..	..	..	21	- 25	3
Netherlands	1 317	5 918	13 660	75 635	142 925	22 692
Poland	-	21	5	16	3 024	4 266
Portugal	..	14	163	8 132	2 078	3 508
Slovakia	..	..	..	29	157	368
Slovenia	-	-	-	65	568	740
Spain	43	311	3 349	58 213	41 829	89 679
Sweden	213	625	14 746	40 971	26 540	24 600
United Kingdom	1 678	7 881	17 948	233 371	83 708	79 457
Other developed Europe	32	253	8 618	54 572	82 418	96 258
Gibraltar	-	-	-	-	-	-
Iceland	..	..	12	394	7 057	4 432
Norway	32	253	1 431	9 505	21 052	10 321
Switzerland	..	..	7 176	44 673	54 309	81 505
North America	8 521	23 328	36 219	187 305	5 806	261 857
Canada	931	4 098	5 237	44 679	33 542	45 243
United States	7 590	19 230	30 982	142 626	- 27 736	216 614

Other developed countries	484	3 222	51 574	49 120	9 690	92 155
Australia	111	460	993	3 174	- 33 172	22 347
Bermuda	-	273	763	10 298	- 4 702	3 952
Israel	9	- 3	199	3 338	2 931	14 399
Japan	355	2 385	48 024	31 558	45 781	50 266
New Zealand	9	107	1 594	752	- 1 148	1 191
Developing economies	51	3 153	11 913	133 341	115 860	174 389
Africa	19	1 090	655	1 526	2 272	8 186
Latin America and the Caribbean	31	899	300	49 577	35 743	49 132
Asia	1	1 146	10 948	82 230	77 747	117 067
China	..	..	830	916	12 261	16 130
Hong Kong, China	-	82	2 448	59 352	27 201	43 459
India	-	4	6	509	2 495	9 676
Oceania	..	18	11	8	99	5
South-East Europe and the CIS (Transition economies)	..	..	35	3 183	14 620	18 689

D. OUTWARD FDI STOCKS

Region/economy	1980	1990	2000	2005	2006
World	599 259	1 815 213	6 209 455	10 578 800	12 474 261
Developed economies	526 826	1 669 230	5 328 937	9 149 311	10 710 199
Europe	234 623	885 062	3 329 489	5 980 369	7 107 823
European Union	212 570	808 014	3 050 357	5 434 091	6 428 665
Austria	530	4 747	24 821	66 063	77 310
Belgium and Luxembourg	6 037	40 636	179 773	-	-
Belgium	-	-	- 7 927	394 752	462 032
Cyprus	..	8	560	3 260	3 992
Czech Republic	..	..	738	3 610	5 058
Denmark	2 065	7 342	73 106	127 116	150 082
Estonia	-	-	259	1 940	3 613
Finland	735	11 227	52 109	81 366	90 878
France	23 883	110 126	445 091	882 298	1 080 204
Germany	43 127	151 581	541 861	925 652	1 005 078
Greece	..	2 882	6 094	13 602	17 521
Hungary	-	197	1 280	7 993	12 693
Ireland	..	14 942	27 925	102 865	124 967
Italy	7 319	60 184	180 275	293 475	375 756
Luxembourg	..	..	7 927	33 410	35 658
Latvia	..	..	24	284	447

Lithuania	-	-	29	721	1 183
Malta	..	..	203	907	910
Netherlands	42 116	106 899	305 461	629 941	652 633
Poland	312	408	1 018	6 439	10 705
Portugal	512	900	19 793	44 072	54 850
Slovakia	..	..	374	705	1 282
Slovenia	-	258	768	3 515	3 942
Spain	1 931	15 652	167 719	372 944	507 970
Sweden	3 572	50 720	123 230	208 836	262 951
United Kingdom	80 434	229 307	897 845	1 228 326	1 486 950
Other developed Europe	22 053	77 047	279 132	546 278	679 158
Gibraltar	-	-	-	-	-
Iceland	..	76	664	10 089	13 190
Norway	561	10 884	46 308	109 994	120 568
Switzerland	21 491	66 087	232 161	426 195	545 401
North America	239 158	515 328	1 553 886	2 530 173	2 833 039
Canada	23 783	84 807	237 639	394 681	449 035
United States	215 375	430 521	1 316 247	2 135 492	2 384 004
Other developed countries	53 046	268 840	445 562	638 769	769 337
Australia	4 983	30 507	85 385	178 335	226 764
Bermuda	27 906	29 306	64 152	42 234	46 186
Israel	17	1 188	9 091	20 694	34 014
Japan	19 612	201 441	278 442	386 581	449 567
New Zealand	529	6 398	8 491	10 926	12 806
Developing economies	72 433	145 793	858 921	1 284 857	1 600 305
Latin America and the Caribbean	48 625	59 730	204 306	356 586	387 944
Asia	16 424	66 180	610 045	876 099	1 151 970
China	..	4 455	27 768	57 206	73 330
Hong Kong, China	148	11 920	388 380	471 289	688 974
India	78	124	1 859	10 033	12 964
Oceania	28	51	298	376	379
South-East Europe and the CIS (Transition economies)	..	191	21 597	144 631	163 756

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